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ABSTRACT

The foundations of Iceland's vocational education and training (VET) system were laid in the last quarter of the 19th century and first decades of the 20th century. Many components of Iceland's VET system are based on Danish models. Most development of VET in Iceland occurred in 1966-1990. Iceland's Act of Vocational Education was passed in 1966, and the act establishing comprehensive schools was passed in 1973. In recent decades, development of VET in Iceland has been marked by an uncertainty with regard to integration of academic study and vocational study into the same educational institutions in the legal and organizational senses as well as in the sense of practice. VET is provided by many sources, including the following: public institutions; private institutions; the Institute of Continuing Education at the University of Iceland; trade unions; industrial research institutions; and large companies. Emphasis on school-based initial VET is increasing. Although many trades will clearly retain the traditional apprenticeship system, the system appears to have lost its former prominence in Iceland's educational system. (Thirty-four tables/figures are included. The following items are appended: list of abbreviations and acronyms; list of 16 major organizations involved in providing or regulating VET in Iceland; bibliography listing 44 references; and a glossary.) (MN)

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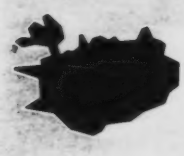
Vocational education and training in Iceland



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Cedefop very much regrets that in the process of publication of the above, mistakes relating to the maps indicating the regions and towns (page 12) and the regional administration (page 15) have occurred. We would ask you to ignore the maps which have been printed and to treat the attached as the authoritative ones.

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Iceland: regions and main towns

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Vocational education and training in Iceland

This monograph has been prepared by

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Cedefop introduction

Objective and target groups

The publication of this description of the vocational education and training system in Iceland is a step towards extending the series of descriptions of the (then 12) Member States published by Cedefop between 1993 and 1996, to include the three new Member States and countries covered by the European Economic Area (EEA) agreement. The objective is to present an overview of vocational education and training activities in Iceland so that it is easily understood by interested 'foreigners'. The target group includes those who may be responsible for, and concerned with, VET policy issues, researchers in this field, directors of vocational training departments or institutions, and trainers and teachers, whether they work at EU or Member State level, or for a governmental or social partner organisation. Some may be using the text at their desks as a reference document, others may be visiting the country concerned either on a study visit or to plan or execute a bi- or multi-lateral project and so be more likely to wish to read the document from beginning to end.

Content and structure

The volumes in this series set out to describe initial and continuing vocational education and training (VET). As far as initial VET is concerned this means including provision which is in some cases the responsibility of ministries of education and in others of ministries of employment or social affairs. As far as continuing VET is concerned it requires coverage of provision for both the employed and unemployed, usually by a wide range of governmental bodies and ministries, by private and social partner organisations.

The structure of the report (see the list of contents) has been laid down in some detail by Cedefop, which has also placed limits on how long it should be. This is to make it easier for readers to make comparisons between the training systems in various EU Member States. The structure is, in general terms, similar to that adopted for the reports on the Member States commissioned in 1992, but there have been some changes such as the addition of a chapter on what we have called 'qualitative aspects', including information on certification, training of trainers and guidance. We are requiring the authors of all monographs including those updating the existing ones, to follow this amended structure, so as to facilitate readers who wish to try to make comparisons between the systems.

Choice of author and consultation procedures

For this series Cedefop has tried to achieve a product which in some ways is impossible. We wished to have a report written by an insider of the system concerned, but easily comprehensible to the outsider. It followed that the person/institution chosen as an author was an insider, located in the country being described. A further corollary of this was that Cedefop has tried to play the role of 'outsider' in discussions on the draft text, in order to draw authors' attention to places where the report was likely not to be easily understood by the public for which it was intended.

Cedefop has also stipulated that the authors must carry out a consultation on the draft with the main parties involved in VET in their country. This has meant their sending the draft not only to the various public bodies responsible for organising the system and providing VET, but also to the principal representative bodies of the social partners. The assistance of the members of Cedefop's management board in the country concerned has in particular been requested in this connection.

Publishing and updating

It is Cedefop's intention, as long as the necessary resources are available, to publish these monographs in paper form in their original language and in English, French

and German. In occasional and exceptional circumstances it may publish some monographs in additional languages. Experience has, however, shown that the time-scale involved in translating and publishing in hard copy form and the rate of change in the systems described means that the reports can almost never be entirely up-to-date. Cedefop intends therefore also to use electronic means of publishing, including making the texts (or part of them) available on Cedefop's Internet site.

Comments and feed-back
As indicated above, Cedefop is conscious that in preparing this series it has had to make choices. We would very much appreciate having readers' views as to whether we have made the right choices concerning the scope, content and structure of the report. We would be pleased to have your comments by letter, fax or e-mail.

Vocational education and training in Iceland
Iceland is the country with the most northerly capital in the world and has — with approximately three inhabitants per square km — the lowest population density of all European countries. With 270 000 inhabitants, it has the second lowest total population of all EEA countries. Nevertheless it offers its young people a fully developed education and training system from pre-school level to tertiary level, including doctoral programmes.

After 10 years of compulsory education, young Icelanders can choose between continuing general education for four years, concluding with a matriculation examination, or different forms of initial vocational training, including apprenticeship leading to a journeyman's certificate.

An important ongoing reform is the new curriculum guides for compulsory and upper secondary education, which will place special emphasis on personal and social skills such as responsibility, critical thinking, self-esteem and a sense of initiative. Information and communication technology will also play an increased role in all subjects and study programmes.

Iceland has one of the highest workforce participation rates in the world and unemployment is as low as 2.3 % (November 1998). The labour force has access to CVT (continuing vocational training) delivered by a wide range of public and private institutions but there is no single 'system' for CVT.

Iceland is not a member of the European Union, but as a member of the European Economic Area it cooperates with Cedefop and successfully participates in the European education and training programmes Socrates and Leonardo.

We are very grateful to the University of Iceland Research Liaison Office and in particular to Mr Guðmundur Árnason and Ms Kristrún Ísaksdóttir and all the other Icelandic experts who participated in the preparation of this monograph. They responded very positively to the comments and proposals for changes which Cedefop made. We hope that together we have provided the reader with a useful tool.

Stavros Stavrou
Deputy Director

J. Michael Adams
Reinhard Nöbauer
Project Coordinators

Thessaloniki, December 1999

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Editor's preface

Iceland is not a member of the European Union. However, through the country's participation in the European Economic Area (EEA), Iceland participates in the activities of Cedefop, as well as various other institutes and programmes related to European cooperation. The present publication is a report on the Icelandic vocational education and training (VET) system, structured in line with Cedefop's reports on the system in other countries. The report is primarily aimed at specialists and those working in the vocational education and training field, but can also, hopefully, be of use to other people.

The vocational education and training system is not a static entity. Therefore, it can be quite difficult to provide up-to-date information, since the writing of a report of this volume is bound to take some time. Figures change, new legislation is passed and other new developments take place. However, to the best of my knowledge, the report describes the system as it is at the time this preface is written.

The vocational education and training system in Iceland reflects the fact that it has developed mainly in this century, although the development has primarily taken place during the latter half of the century. Important parts of it are based on Danish models, mostly as a result of the close ties between the countries when Iceland was part of the Danish kingdom. During recent decades, the development has been marked by an uncertainty with regard to the integration of academic study and vocational study into the same educational institutions, in the legal and organisational sense as well as in practice. Over the last few years, however, much effort has been put into defining the school system as a whole, not only the vocational education system as such. Vocational training was somewhat in the background during this phase as the main emphasis was on academic study. The balance will most likely shift in favour of vocational study in the near future, with the increased influence of the social partners. This work is already bearing fruit and its effects will become more evident in the next few years. Furthermore, the social partners have joined hands in a new formal entity, *Mennt* (organisation of social partners, vocational schools and training institutes). *Mennt's* establishment is in line with the government's aim to provide the social partners with more responsibility when it comes to policy-making regarding vocational training.

We are at present experiencing dramatic changes in more ways than in the formal structure itself. The international economy is undergoing dramatic changes, and Iceland's participation in the EEA demands that the competitiveness of Icelandic industry be secured, not least by providing it with skilled workers. Recent developments in information technology are likely to make a mark on all education in the future. These changes will undoubtedly be even more dramatic than we can imagine. They will affect the ways in which we present and disseminate knowledge. They will also be reflected in the content of education and training.

The writing of this monograph is the work of more than one individual. The first draft was written by Mr Gylfi Einarsson, then an employee of the Research Liaison Office. After he moved to other duties, the work was put in my hands. I see myself more as an editor than an author. I have written several parts and rewritten others. I have also been fortunate enough to have access to several people who either provided me with information or wrote short chapters. Earlier versions of the report were read by representatives of the main social partners, Mr Halldór Grönvold from the Icelandic Federation of Labour (ASÍ), Mr Ingi Bogi Bogason, from the Federation of Icelandic Industries (SI) and Mr David Stefánsson, from the Confederation of

Icelandic Employers (VSÍ). They all gave valuable comments, as well as reading the final draft. Above all, I am indebted to Ms Kristrún Ísaksdóttir, at the Ministry of Education, Science and Culture, without whose efforts this work would be much more incomplete than it is.

Last, but not least, I would like to express my thanks to Mr Reinhard Nöbauer, who, with his constructive suggestions and unlimited patience, has made this a better work than it would otherwise have been.

Dr Guðmundur Rúnar Árnason

Reykjavík, June 1999

Vocational education and training in Iceland

12

Iceland: regions and main towns

Chapter I
Background information

1.1. Political and administrative structures

1.1.1. Size and position

Iceland is an island situated in the North Atlantic. It is the second largest island in Europe and the third largest in the Atlantic Ocean. Iceland has a total area of 103 000 km^2. The island is 500 km long from east to west and 313 km broad from north to south. The shortest distance to Greenland measures 290 km, to Scotland 812 km, to the Faroe Islands 435 km and to Norway 970 km.

Iceland is almost exclusively formed from volcanic rocks and has been piled up through voluminous volcanic material at a much higher production rate per time unit than any other region in the world. Geologically, the island is very young and bears many signs of still being in the making. Only about a third of the total area is now covered by more or less continuous vegetation. The remaining area is mostly barren highlands and mountains, recent lava flows, sandy outwash plains and glaciers.

The population of Iceland is 275 277 (1 December 1998). All speak the same language, Icelandic. Almost 9 out of 10 belong to the State Lutheran Church, 3.5 % belong to Free Lutheran Churches, 3 % to other religious communities, and 2 % do not belong to any religious community.

1.1.2. Brief history

Iceland is an independent nation State. The settlement of Iceland by Nordic and Celtic people took place in the ninth century and the settlers established sovereignty. The settlement pattern was single farms with no real villages. There were 4 000–5 000 primary farms thinly spread along the coasts and valleys, most of them supporting only one or two families. This suggests a population of around 50 000. The year 930 marked the foundation of Althing (*Alþingi* — literally: General Assembly) and the beginning of the Icelandic Commonwealth (*þjóðveldi*), which was to survive for the next 330 years. A single assembly offered an opportunity to establish nationwide legal unity as the different legal traditions of settlers were coordinated and adapted to conditions in a new country. The establishment of the Althing has been interpreted as the formal origin of an independent State, the Icelandic Commonwealth. The Althing may even be defined as a parliament of sorts. The weaknesses of this organisation, and a general trend of the time, i.e. the strengthening of feudal monarchies through centralisation and expansion, led to the collapse of the Commonwealth in 1262 and Iceland was brought under Norwegian sway.

Iceland came under Danish rule with the establishment of the Kalmar Union in 1397. Isolation due to great distances kept the country rather independent of foreign affairs until the seventeenth century when the Danish king clamped a monopoly on all trade. This was in line with prevailing mercantilist ideas and aimed to assist in the formation of a capitalist class. Furthermore, an absolute hereditary monarchy was established.

The nineteenth century was a period of struggle for political and economic freedom that bore fruit at the beginning of the twentieth century. In conjunction with the romantic movement in European culture and the growing influence of political liberalism and constitutionalism, the nation State was regarded as the only true forum for politics and government. Icelanders could not identify with Danish

nationalism and demanded autonomy, which by then was seen as an inherent right of nationality.

Iceland got its own written constitution in 1874, which granted legislative power, especially with regard to budget allocations. Executive power, however, remained in Danish hands. The country was largely autonomous from 1904, obtaining home rule and its first minister, and becoming a sovereign State in 1918, although under the Danish Crown. A new constitution was adopted in 1920 and a Supreme Court (*Hæstiréttur*) established the same year. Finally the Republic of Iceland (*Lyðveldið Ísland*) was established in 1944.

1.1.3. Legislative assembly and government

The Icelandic parliament, Althing, consists of 63 members elected for four years. The Prime Minister (*forsætisráðherra*) forms the government and leads the cabinet, and cabinet ministers have a seat in the Althing by virtue of their office. Coalition governments are the conventional form and never in the history of the Republic has there been a one-party majority government, and rarely minority governments. The President (*forseti*) of the republic is elected for four years by a plebiscite and has functions similar to those of a constitutional monarch.

1.1.4. Foreign relations

During the first years of sovereignty, Denmark conducted Iceland's policy toward the outside world through her foreign service. Iceland opened diplomatic representation in Copenhagen in 1920, the nation's only diplomatic channel until 1940, when Germany occupied Denmark. Iceland became a founding member of NATO in 1949, joined the United Nations in 1946 and the Council of Europe in1951. Iceland participated from the beginning in the OEEC (later OECD). Major importance was attached to Nordic cooperation and Iceland became an active participant in the Nordic Council, established in 1952. As regards international trade, Iceland joined GATT in 1968, the European Free Trade Association in 1970 and obtained a free-trade agreement covering all industrial products with the European Economic Community (later European Union) along with other EFTA countries in 1972. Iceland ratified the European Economic Area (EEA) agreement, which came into effect on 1 January 1994.

1.1.5. The Ministry of Education, Science and Culture

The Althing is legally and politically responsible for the education system. The Althing determines its basic objectives and administrative framework. All education is under the administration of the Ministry of Education, Science and Culture *(Menntamálaráðuneytið)* with the exception of schools of agriculture, which are the responsibility of the Ministry of Agriculture *(Landbúnaðarráðuneytið)*, and continuing education for the labour market, which is the responsibility of the Ministry for Labour and Social Affairs *(Félagsmálaráðuneytið)*.

The Ministry of Education, Science and Culture is responsible for carrying into effect legislation at all levels from pre-school *(leikskóli)* and primary school *(grunnskóli)* through secondary and higher education. The ministry is in charge of planning educational improvements and issuing regulations and bears the final responsibility for all official developments and experimental activity in the schooling system. The

ministry lays down the framework and policy for pre-school education, including its educational role. It issues the national curriculum guide (*aðalnámsskrá grunnskóla*) for compulsory education, which is intended both to provide the detailed objectives necessary to implement the law and offer guidelines as to how they should be carried out in practice. In addition the ministry issues guidelines on the proportion of total teaching time to be devoted to individual subjects for each year. The ministry is also responsible for a curriculum guide for upper secondary education (*námsskrá framhaldsskóla*), including initial vocational education and training, which describes the various programmes of study available, their objectives and course content.

1.1.6. The Ministry of Social Affairs

The Ministry of Social Affairs *(Félagsmálaráðuneytið)* is responsible for issues related to the labour market, rules and procedures regarding wage disputes, the registration of unemployment and issuing work permits for foreigners. In relation to education, the ministry is also responsible for continuing education for the labour market. In this respect, it must gather and distribute information about vocational education and its availability. This, in part, is the role of regional employment offices, and the ministry's vocational education council *(Starfsmenntaráð)*, which puts its main focus on enhancing the production of vocational training material.

1.1.7. Regional administration

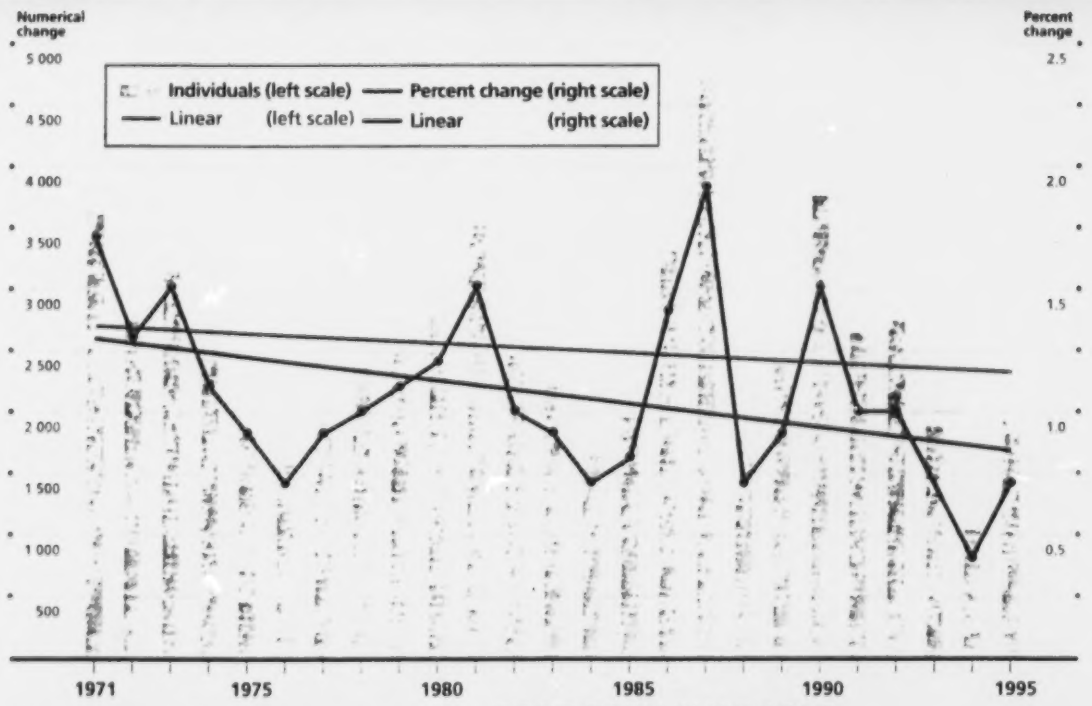
Up to 1997 the regional administration structure for compulsory education was based on Iceland's division into eight educational regions. This was changed with new legislation and an agreement with the national association of local authorities in Iceland *(Samband íslenskra sveitarfélaga)*. Local authorities are responsible for planning, monitoring teaching and other educational services. They also supervise counselling, psychological help for pupils, school development and innovative work. Each municipal authority is now supposed to have a special school office, either on its own, or in cooperation with its neighbours. In most cases these offices also provide administration and services for the pre-school stage. The map shows the 20 regional offices. There is no regional administration at the pre-school, upper secondary and higher educational levels.

1.2. Population

1.2.1. Total population

The Icelandic population was 275 277 on 1 December 1998. The first census of the total population in 1703 showed a population of roughly 50 000 inhabitants. It then fell slightly and did not reach the 50 000 mark again until 1824. The medieval population may have been larger at certain periods, but it also fell to much lower levels, at least in the two epidemics of plague that ravaged the country at the beginning and end of the fifteenth century. Later, in the eighteenth century, three sharp reductions in population took place as a result of smallpox and famines. The population grew considerably in the nineteenth century reaching 100 000 in 1925, and in 1968 Icelanders were 200 000 in number. The rate of population growth has slowed down slightly since 1970 (see Figure 1).

Figure 1. **Change of the population 1971 – 95**



* line in the graph means trend over a longer period of time, making allowances for fluctuations from year to year.

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SOURCE **STATISTICS ICELAND**

1.2.2. Age structure

Table 1 illustrates the age structure of the Icelandic population in 1995 and contains forecasts for 2000 and 2010. Comparison of the figures for 1995 and the forecast for 2010 reveals that there will be only a slight increase in the number of children and teenagers at compulsory and secondary school age.

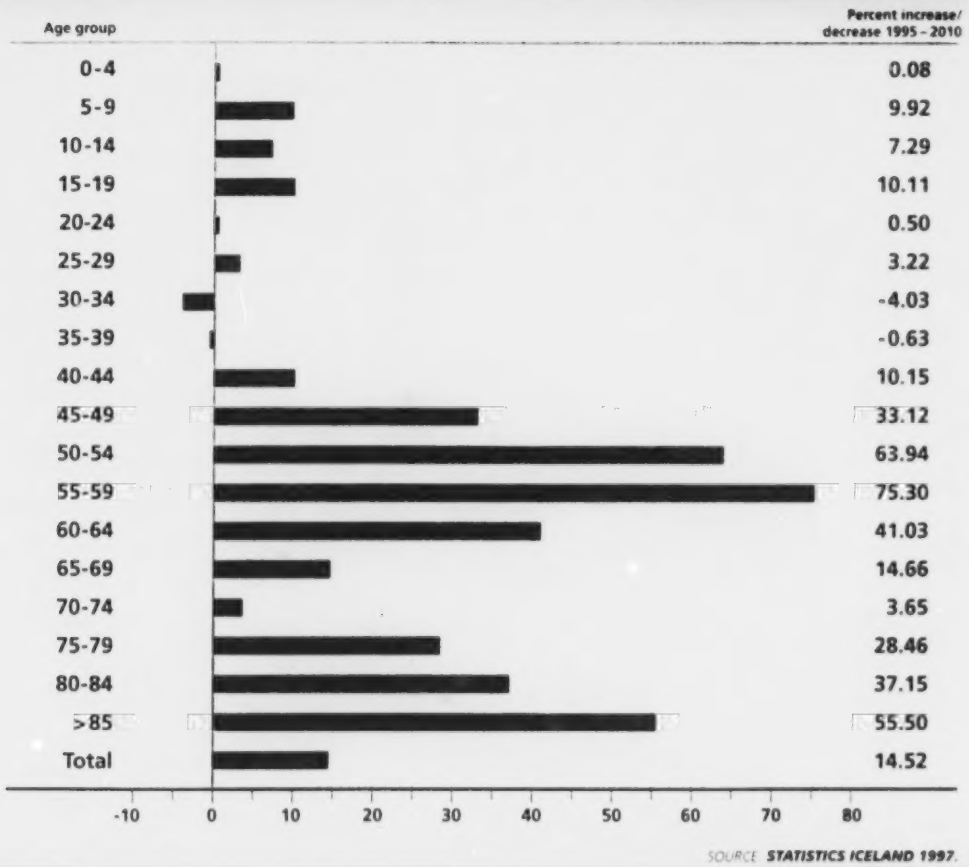
There will be hardly any increase in the age groups 20 to 40 but the number of people approaching the end of their working life, 50 to 64, will increase sharply, as will the number of old people, i.e. over 75. These results are outlined in Figure 2.

Table 1. **Age structure, 1995–2010**

Age group	1995 Men	1995 Women	2000 Men	2000 Women	2010 Men	2010 Women
0–4	11 523	10 895	10 971	10 429	9 995	9 501
5–9	11 217	10 537	11 803	11 079	10 267	8 658
10–14	10 633	10 204	11 106	10 446	11 105	10 407
15–19	10 774	10 379	10 928	10 428	11 923	11 170
20–24	10 615	10 313	10 629	10 401	11 069	10 589
25–29	9 934	9 913	10 405	10 067	10 589	10 272
30–34	10 724	10 574	10 161	9 984	10 288	10 012
35–39	10 658	10 286	10 786	10 648	10 272	9 919
40–44	9 557	9 255	10 519	10 267	10 036	9 980
45–49	8 495	7 912	9 461	9 052	10 556	10 567
50–54	6 604	6 450	8 174	7 682	10 193	10 021
55–59	4 986	5 067	6 179	6 180	9 008	8 765
60–64	4 944	5 113	4 761	4 908	7 578	7 339
65–69	4 677	5 016	4 601	4 927	5 436	5 713
70–74	3 700	4 175	4 044	4 521	3 848	4 331
75–79	2 567	3 207	2 933	3 611	3 239	3 958
80–84	1 544	2 318	1 738	2 493	2 270	3 100
> 85	1 158	2 034	1 264	2 322	1 681	2 938

SOURCE *STATISTICS ICELAND 1997*

Figure 2. **Relative change in number of individuals in separate age groups, 1995 - 2010**

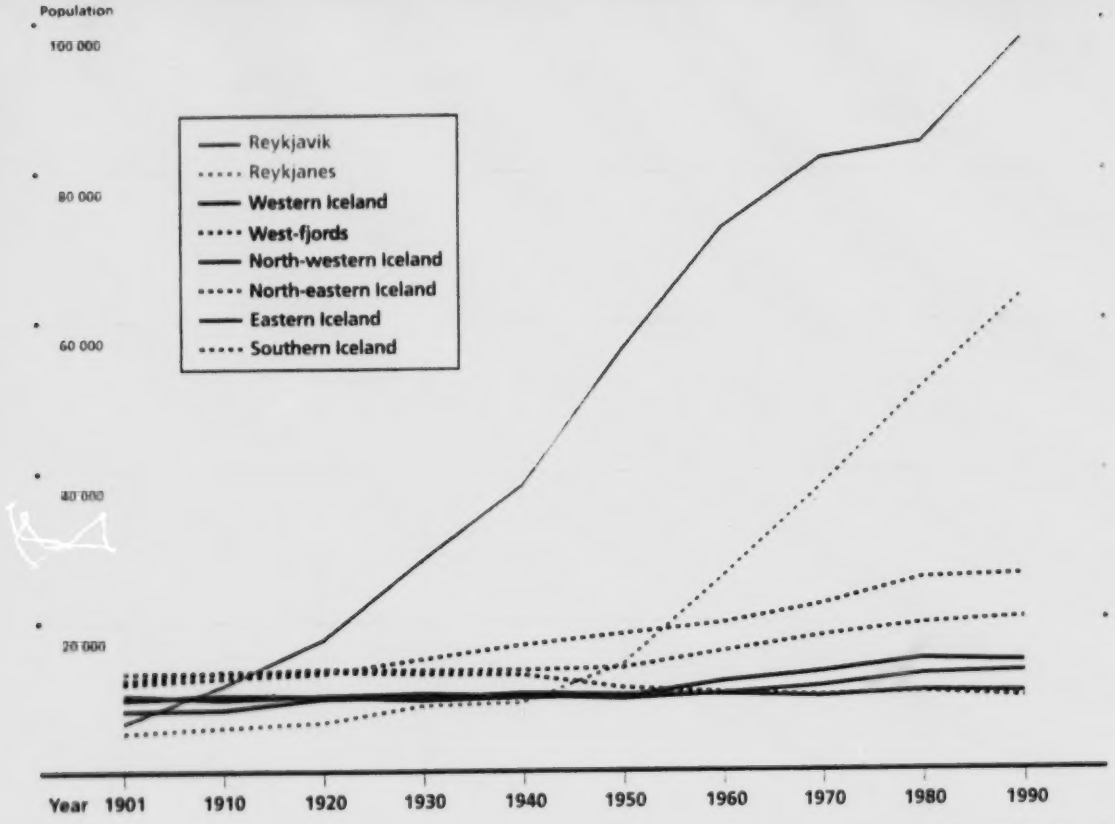


SOURCE: **STATISTICS ICELAND 1997.**

1.2.3. Distribution of the population

Iceland is a sparsely populated country with an average of only three persons per square kilometre, which is by far the lowest figure in the EEA. The largest proportion of the population lives in the south-western part of the country in the capital Reykjavik and surrounding towns. Immigration to the capital area from rural areas has been increasing in the post-war period and has been especially marked in the last two decades as shown in Figures 3 and 4.

Figure 3. **Population in different regions of Iceland 1900–90**



SOURCE **STATISTICS ICELAND 1997**

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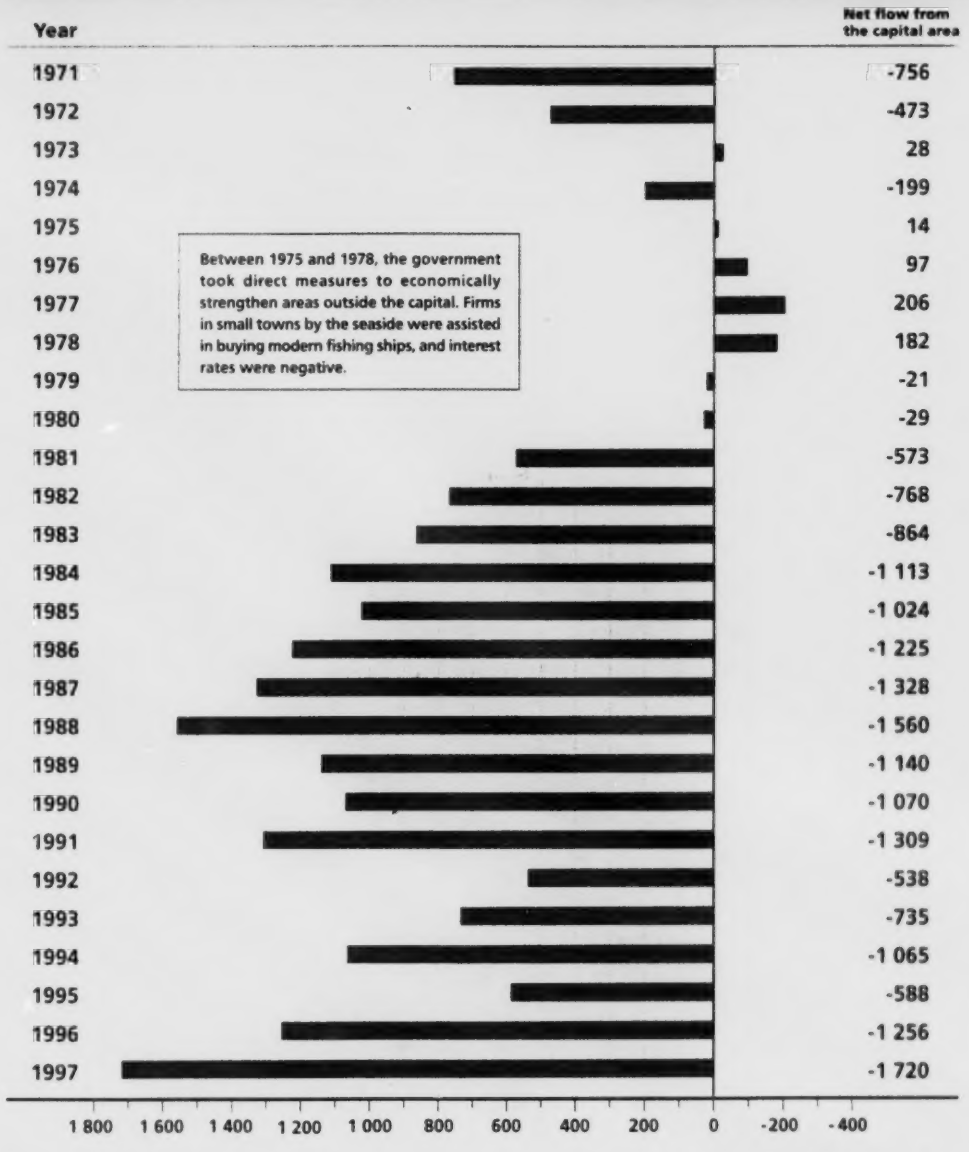
Figure 4. **Net immigration flow to (left) and from (right) the capital area 1971–97**



SOURCE **REGIONAL PLANNING INSTITUTE 1997**

1.2.4. Foreign nationals

Immigration has never had much effect on the Icelandic population or the labour market. Over the last decades, net immigration has in most years been negative, that is, a greater number of people have emigrated than immigrated. Immigration has, however, increased somewhat in recent years. In 1998 a total of 1 774 foreign individuals immigrated to Iceland, while 661 emigrated. This means that net immigration of foreign nationals was 1 113 individuals.

1.3. The economy and the labour force

1.3.1. The economy

The small size of Icelandic society and the sparse population of the country present a variety of obstacles to economic development. The domestic market is small and the enterprises serving it are generally small as well. The smallness of enterprises makes it difficult to rationalise their operations, ensure cost-efficiency and increase productivity through well-directed work organisation and good utilisation of human resources. This is no doubt part of the reason why the productivity of manpower and capital is lower in Iceland than in countries usually chosen for comparison. The same is true of the price levels for consumer goods and services. They are generally slightly higher than in neighbouring countries.

The sparse settlement and long distances mean that the per capita cost of social infrastructure and public services is high, especially outside of the south-western region. Per capita GDP is high, and in recent years Iceland has been among the top ten countries of the world in this respect. In 1997, for instance, per capita GDP in the country was ECU 24 400 (purchasing power parity — ppp) or similar to that of the United States and Germany. The explanations for this can be found, for instance, in the large fish catches, the activity rate and long working hours of Icelanders. Right up until the middle of the last decade Icelandic fisheries were limited only by the pursuit capacity of the fishing fleet and the situation of the fishing stocks. Legislation on fisheries management was then adopted which limited fishing to a specific total allowable catch (TAC) and individual transferable quotas. The overwhelming emphasis on fishing and fish processing has, in the opinion of many economists, been detrimental to other employment sectors, especially competitive industries, since the needs of the fishing industry have dictated the exchange rate. Fishing has always been predominant in the economy. However, the relative importance of the marine sector has declined somewhat in recent years. In the early 1960s, exports of fish and fish products constituted some 90 % of merchandise exports, but this share had declined to approximately 71 % in 1997.

Goods and services exports have comprised 30 to 40 % of GDP in Iceland in recent decades, a proportion which has remained unchanged since the end of World War II. By comparison, Danish exports of goods and services increased from 28 % of GDP in 1970 to 36 % in 1991, Dutch exports rose from 42 % to 54 % and Irish exports from 37 % to 62 % during the same period. The net public debt was 39.5 % of GDP in 1996, the governmental budget showed a surplus of 1.3 % of the GDP in 1998 and the inflation rate was around 1.8 % in the same year.

1.3.2. The labour market

The distribution of workers on the labour market in 1995 is shown in Figure 5, below. Figures represent the number of individuals in each sector, not person-years.

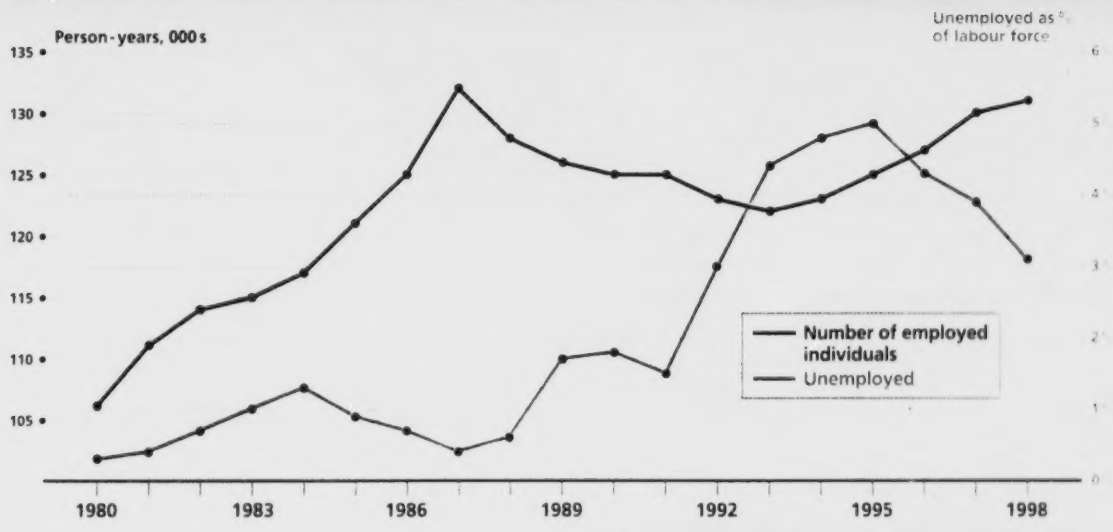
Figure 5. **The labour force by occupational sector, 1997**

Occupational sector	Number of persons employed	%
Agriculture	5 900	4.2
Fisheries	6 300	4.4
Manufacturing	24 800	17.5
of which fish processing	*7 900*	*5.6*
Utilities	1 200	0.8
Construction	10 100	7.1
Commerce and maintenance	20 100	14.2
Hotels and restaurants	4 200	3.0
Transport and communications	9 800	6.9
Financial services	4 200	2.9
Real estate and business services	8 900	6.3
Public administration	6 000	4.2
Education	9 000	6.3
Health care and social services	20 900	14.7
Other public services	10 300	7.3
Total employed	141 700	100.0
of which private sector	*95 000*	*67.0*
of which public sector	*46 700*	*33.0*

SOURCE: ***STATISTICS ICELAND, 1998.***

The number of unemployed people during the period 1970 to 1988 was 500 to 1 000, which corresponds to 0.5 to 1 % of the workforce. Unemployment grew rapidly after 1988 and reached a peak in 1995, when the unemployed numbered 6 000, or 4.5 to 5 % of the workforce. Unemployment has subsequently shown a gradual decrease as shown in Figure 6 and was down to 2.3 % in November 1998. The activity rate is one of the highest in the world, 82.5 % in April 1999. The activity rate is somewhat higher among men (86.7 %) than for women (78.2 %).

Figure 6. **Employment and unemployment 1980 – 98**



SOURCE **NATIONAL ECONOMIC INSTITUTE, 1997, STATISTICS ICELAND, 1997.**

1.3.3. Enterprises

The European Commission groups enterprises according to size in the following manner:

- enterprises with no paid employees;
- very small enterprises: 1 to 9 workers;
- small enterprises 10 to 49 workers;
- medium-sized enterprises: 50 to 249 workers;
- large enterprises: 250 or more workers.

Enterprises with fewer than 250 workers are collectively termed 'small and medium-sized enterprises' (SMEs).

On the basis of the number of employees, some 40 employers in Iceland fall into the category of large enterprises and the total number of their person-years is around 33 000 (1994). These include publicly and privately owned enterprises, and the latter accounted for some 11 000 person-years in 1994. In 1994 the total number of person-years was approximately 123 000 (calculated on the basis of a 52-week working year). About 26 % of industrial activity is thus carried out in large enterprises, if measured in person-years. In 1998 (April) the labour force consisted of approximately 145 000 individuals.

The size distribution of enterprises by person-years in 1994 is shown in Table 2. It includes all the enterprises and institutions in the country according to the data of the taxation authorities on working weeks.

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Table 2. **Number and size of enterprises in Iceland, 1994**

Estimated number of person-years in each category. Both public and private enterprises are included.

Person years	Number of enterprises	Proportion of enterprises %	Mean number of person-years	Number of person-years	Proportion of person-years %	Cumulative proportion of person-years
0–1	17 688	54.0	0.75	13 266	10.6	10.6
1–2	8 379	25.6	1.5	12 568	10.0	20.6
2–5	4 094	12.5	3.5	14 329	11.5	32.1
5–10	1 210	3.6	7.5	9 075	7.3	39.4
10–20	720	2.2	15	10 800	8.6	48.0
20–30	235	0.7	25	5 875	4.7	52.7
30–40	117	0.4	35	4 095	3.3	56.0
40–60	119	0.4	50	5 950	4.8	60.8
60–250	167	0.5	80	13 377	12.6	73.4
>250	43	0.1	775 (1)	33 325	26.6	100.0
Total	**32 772**	**100.0**		**122 660** (2)	**100.0**	

(1) The mean number of person-years in the 40 largest enterprises in the country was 775 in 1994, according to Frjáls verslun, No 7, 1995.
(2) Total number of person-years in 1994 according to unpublished industrial statistics of the National Economic Institute.

SOURCE: *NATIONAL ECONOMIC INSTITUTE INDUSTRIAL STATISTICS 1994, UNPUBLISHED. FREE TRADE (FRJÁLS VERSLUN): '100 LARGEST', No 7, 1995*

Some 4.3 % of enterprises comprise 10 or more person-years, but at the same time account for about 60 % of the total person-years, while about 40 % are contributed by enterprises with less than 10 employees. In the category 0 to 1 person-years in 1994 the main types of activity were real estate operations (i.e. buying, selling or renting, and other dealings) and services for businesses (2 865 enterprises), followed by farms (1 893) and construction work (1 845). This category also included 3 003 enterprises with unspecified activities, which contributed only about 400 person-years. Altogether there were some 9 600 enterprises comprising one self-employed person.

The average number of employees in enterprises is approximately 3.5 including only non-agricultural and private enterprises. Comparing this figure to the 15 EU countries shows that only Greece is lower, with an average of 1.9 employees per enterprise. According to data obtained from the register of companies, at the beginning of 1996 there were 8 813 registered limited-liability companies in Iceland, 750 of which were public limited companies and just over 8 000 private limited companies. During 1996 some 1 100 new companies were registered, of which 20 were public limited companies.

1.3.4. The two sides of industry

The Icelandic Federation of Labour (*Alþýðusamband Íslands* — ASÍ) and the Confederation of Icelandic Employers (*Vinnuveitendasamband Íslands* — VSÍ) are the principal social partners in Iceland and, together with the national government, set the tone for policy formulation in labour market questions. There are about 2 600

member enterprises in VSÍ, by far the majority of whom (all but 90) belong to the seven occupational sector associations comprising the Confederation. Through their membership the member associations and individual member enterprises delegate to VSÍ responsibility for all collective bargaining agreements on their behalf. VSÍ has concluded some 370 agreements with about 200 trade unions. About 72 500 employees receive their pay from member enterprises of VSÍ, which is around half of all employees in Iceland. In 1997 the Icelandic trade union federations had about 100 600 active members, i.e. persons who are active in the labour force. With roughly 60 000 active members, ASÍ is by far the largest employees' federation in the labour force. Employees are divided principally into nine trade union federations.

Table 3. **Active members of trade union federations 1997**

Trade union federations	Number of members
Iceland Federation of Labour	60 400
Confederation of University Graduates	8 700
Federation of State and Municipal Employees	17 100
Merchant Navy and Fishing Vessels Officer's Guild	1 000
Apprentices Union of Iceland	600
Teachers' Association of Iceland	3 600
Masons' Association of Iceland	200
Union of Icelandic Bank Employees	2 400
Icelandic Foreman's Union	2 100
Trade unions not in federations	4 500
Total	**100 600**

SOURCE *STATISTICS ICELAND, LABOUR FORCE SURVEY 1997*

Semi-skilled workers form by far the largest group within the Icelandic Federation of Labour, and most of them belong to one of five trade union associations, as indicated in Table 4. In addition to the national associations mentioned there, the Electricians' Union of Iceland (*Rafiðnaðarsamband Íslands*) (1 852 fee-paying members) and the Federation of Skilled Construction and Industrial Workers (*Samiðn*) (4 844 fee-paying members), are both members of ASÍ.

Table 4. **National associations of unskilled workers within the Icelandic Federation of Labour who have direct membership of ASÍ, together with their estimated membership in 1999**

National associations of unskilled workers within ASÍ	Fee-paying members
Federation of Icelandic Factory Workers	3 947
Icelandic Shop and Office Workers' Federation	16 686
Icelandic Seamens' Federation	3 865
Icelandic General and Transport Workers' Federation	28 016
Association of Icelandic Services Unions	2 516
Unions with direct membership	6 110
Total	**61 140**

SOURCE *ASI'S WEB PAGES 1999*

The associations listed in Table 4 include about 36 % of the Icelandic labour force. The vast majority of these people have only completed compulsory schooling, which at present consists of 10 years of study.

1.3.5. Educational level of the labour force

Research carried out from 1993 to 1995 by the Social Science Faculty of the University of Iceland on the education of workers in Icelandic industry, which included 18 000 persons, revealed that approximately 43.3 % of females and 30.0 % of males in the labour force have completed only general basic education. Almost 18 % of males have university education and about 20 % of females. Table 5 shows the education of workers in the labour force in Iceland.

Table 5. **Educational level of the labour force by sex, 1995**

Education	Males (%)	Females (%)
General basic education	30.0	43.3
Limited vocational training	5.4	16.3
Further academic study	8.5	15.3
Further vocational study	38.6	4.8
Vocational colleges at university level	1.9	4.4
BA degree	4.1	10.5
BSc degree	5.3	3.5
MA, MSc or PhD degree	6.3	1.9
Total	**100.0**	**100.0**
Total university educated	**17.6**	**20.3**

SOURCE *STEFAN OLAFSSON, MORGUNBLAÐIÐ 8.12.1996.*

In Table 6 workers are divided into three groups by educational level: basic education, vocational or upper secondary study, and university study:

- ISCED 1-2: 10 years of compulsory education (or corresponding);
- ISCED 3-5: vocational and upper secondary study, including comprehensive schools, grammar schools, special schools and all non-compulsory education not leading to a university degree;
- ISCED 6-7: all university education.

Table 6. Educational level by occupational sector, 1996

Occupation			Basic education ISCED 1-2		Vocational or upper secondary study ISCED 3-5		University study ISCED 6-7	
	Total number	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Agriculture	5 900	4.1	2 600	5.9	3 200	4.1	200	1.0
Fisheries	6 300	4.4	1 500	3.4	4 700	6.0	100	0.5
Manufacturing (other than fish processing)	16 900	11.9	5 600	12.6	10 700	13.7	700	3.6
Fish processing	7 900	5.6	4 000	9.1	3 800	4.9	100	0.5
Utilities	1 200	0.8	300	0.7	700	0.9	200	1.0
Construction	10 100	7.1	1 900	4.3	8 100	10.4	200	1.0
Commerce and maintainance	20 100	14.2	7 700	17.5	10 600	13.5	1 800	8.9
Hotels and restaurants	4 200	2.9	2 000	4.5	2 000	2.6	200	1.0
Transport and communications	9 800	6.9	2 200	5	6 800	8.7	800	4.1
Financial intermediation	4 200	3.0	1 500	3.4	2 100	2.7	700	3.6
Real estate and business services	8 900	6.3	2 000	4.5	3 100	4.0	3 700	18.3
Public administration	6 000	4.2	1 100	2.5	3 000	3.8	2 000	9.9
Education	9 000	6.4	1 500	3.4	3 400	4.4	4 200	20.8
Health services and social work	20 900	14.7	6 900	15.7	10 300	13.2	3 800	18.8
Other community services	10 300	7.3	3 300	7.5	5 500	7.1	1 500	7.5
Total	**141 700**	**100.0**	**44 100**	**100.0**	**78 000**	**100.0**	**20 200**	**100.0**

SOURCE: *STATISTICS ICELAND, THE LABOUR FORCE SURVEY 1997.*

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It is clear from this data that the largest proportion of people with only basic education work in manufacturing. Approximately 17.5 % of the total work force is employed in manufacturing, including fish processing, while 21.7 % of individuals with only basic education belong to this occupational sector. University educated men and women, however, are found especially in real estate and various other services, education and health care.

The level of education is lowest among workers in agriculture, manufacturing and hotel and restaurants, with communications and transportation and commerce and maintenance following close behind. The proportion of university-educated men and women is highest in real estate and various services, together with educational activities.

Chapter II A brief description of the education system and its development

2.1. General development

2.1.1. Long history of schooling

We can hardly speak of a coherent education system until the middle of this century, at least not in any legal sense. There was, however, a long history of schooling in Iceland before that. The first schools were established at the two bishoprics in the country in the eleventh century, only 200 years after the first settlement of Nordic people. These schools accepted pupils from 11 to 15 years of age and graduated them after a six-year course of study, and were in fact the predecessors of the grammar schools.

2.1.2. The prelude to general schooling

Literacy appears to have been relatively widespread in Iceland over the centuries, despite the lack of formal learning, at least as far as most people were concerned. In regulations from 1759 and 1790 special requirements were made for the instruction of children as a necessary preparation for their confirmation. In 1880, a law was passed in Iceland concerning the instruction of children in reading, writing, arithmetic and the Christian doctrine of the Lutheran Church. Parents were responsible for this instruction, but all supervision was placed in the hands of the ministers of the State Church.

2.1.3. Compulsory education from 1907

Publicly funded universal education was introduced by the 'Public Elementary Education Act' in 1907. A year later an Icelandic teacher training college was founded. Primary education was then made compulsory and was confined to four years for children aged 10 to 14. Local education authorities were permitted (in 1926) to extend compulsory education to children between the ages of 7 and 10. In 1936 compulsory education was prolonged to seven years and covered 7 to 14 years of age. In 1946 compulsory education was prolonged to eight years, 7 to 15.

2.1.4. Lower secondary schools

In 1882 the first lower secondary school was established in Hafnarfjordur, a small but growing town, about 10 km from Reykjavik. During the next years, other such schools were established in many of the larger towns. They were incorporated in the law on education in 1946. In 1929, a law was enacted concerning the establishment of State-run lower secondary district schools, and in accordance with this legislation eight district boarding schools were established in different parts of the country. Most of these schools offered a two-year educational programme.

2.1.5. Law on education 1946

New legislation passed in 1946 marked a turning point in educational affairs in Iceland. By this legislation the State's obligations in education were formalised and different types of education put into a system, divided into four levels: primary, lower-secondary, upper secondary, and higher. Besides the prolongation of compulsory schooling, already mentioned, a new nationally coordinated entrance examination (*landspróf miðskóla*) to the grammar schools was introduced. The rationale for the new examination was to bring about greater equality with regard to grammar school places and to make it easier for young people to have access to a

grammar school education. General secondary programmes [*gagnfræðadeildir*] were also strengthened and practical courses were introduced within these programmes.

2.1.6. The education boom in the 1960s

There are many combined factors that can be used to explain the increasing demand for secondary education after World War II. Economic development, increased division of labour, State involvment in an ever-increasing number of tasks after the declaration of independence and better compulsory education are amongst those. The effects of the legislation on education from 1946 were fully felt around 1960, but the availability of upper secondary education had not followed suit. The two existing grammar schools (*menntaskóli*), one in Reykjavik and one in Akureyri, could not meet the increased demand. Around this time a new grammar school was established in a rural area in the southern part of the country, and additional classes were introduced in the lower secondary schools to offer teaching in the material taught in the first one or two classes of grammar schools. The growth was so fast, that the facilities available in no way met the demand. Teaching had to take place in all kinds of provisional buildings, rented houses near the schools and suchlike. These additional classes were integrated into the system of upper secondary schools during the 1970s.

2.1.7. Law on compulsory education 1974

In 1974, new legislation concerning compulsory education was passed following an extensive debate on education in Iceland. It was anticipated that the law would introduce nine-year compulsory schooling within 10 years of its enactment. In 1984, the act on nine-years compulsory schooling, according to the law of 1974, came into force. This was again prolonged to 10 years by a new law in 1991. Elementary education starts when the child has reached 6 years of age and finishes when the child becomes 16 years old.

2.2. The present system of pre-schools and compulsory education

2.2.1. Pre-schools

The first pre-schools (*leikskóli*) were established during the 1930s but until the 1970s their services were offered only to groups such as single parents and students. During the last couple of decades there was a complete conversion regarding these matters and now parents living in most communities in urban areas have the right to send their children to pre-schools from the age of 2 or 3 until 6. According to the 'Pre-school Act', No 78/1994, pre-school is the first level of the educational system and is intended for children who have not reached compulsory school age. The construction and operation of pre-schools is funded and supervised by local authorities, who are obliged to provide children with access to pre-schools. The Ministry of Education, Science and Culture however formulates pre-school policy. It provides for the developmental and educational role of pre-schools and overall policy concerning working practices and internal quality evaluation. As of 1 December 1998, there were 249 pre-schools in Iceland. About 70 % of children between 1 and 5 years of age attend pre-school. The proportion was highest for the 4-year old children (91 %) and lowest for the 1-year olds (12 %).

2.2.2. The Compulsory School Act 1995

According to the Compulsory School Act, No 66/1995, 10 years of school attendance is compulsory and all children and young people 6 to 16 years of age are required to attend compulsory school (*grunnskóli*). The Act obliges parents to ensure that their children are enrolled in and attend school while they are of compulsory school age, while at the same time obliging local authorities to ensure that pupils have access to the education provided for by law without charge. The school year commences on 1 September and concludes on 31 May. Schools operate five days a week and pupils have a minimum of 170 days of instruction annually. On 1 August 1996, responsibility for compulsory school education was transferred completely from central government to local authorities.

2.2.3. National examinations

Since 1977 final national examinations (*Samræmd próf*) have been held in compulsory schools, generally in four subjects: Icelandic, mathematics, English and Danish (or Norwegian or Swedish). The Act from 1995 provides for national examinations in the fourth and seventh grades as well as in language, arts and mathematics, for diagnostic purposes.

2.2.4. Full day's schooling

Priority is given to providing a full day's schooling for all children, with adequate accommodation and staffing. According to the Compulsory School Act 1995 only one 'shift' per day is allowed. This objective must be fully implemented by the school year 2001/02. Local authorities are permitted by the law to make provision for after-school activities for pupils outside the limits of the normal school day. This has been introduced to an increasing extent, providing pupils with supervised activities in schools over and above their traditional classroom instruction; these may include leisure activities, supervised areas or extra study. Each classroom has its own supervisory teacher. Health-care services are available in compulsory schools, providing treatment for minor injuries and vaccinations. The new Compulsory School Act obliges all local authorities which operate compulsory schools to provide these schools with specialist assistance, such as study counselling and psychological services.

2.2.5. Number of pupils

Each year class numbers are on the average slightly over 4 000 pupils. During the 1998–99 school year there were 42 443 pupils in compulsory schools. That same year there were 196 compulsory schools in operation, in addition to six special schools for handicapped children. The size of schools varies greatly. In 1998 the largest compulsory school in Iceland had 796 pupils, and it is not uncommon for schools in urban areas to have 500 to 800 pupils. In rural areas the schools are generally considerably smaller, and there are in fact schools with less than 10 pupils.

2.2.6. Special education

According to laws concerning pre-school, compulsory and upper secondary level of education, children and pupils who need special education (*sérkennsla*) because of specific learning difficulties or because they have emotional or social problems and/or they are handicapped, have a right to special support, and the main policy is that such support should take place in their local home school. Many ordinary schools accept pupils with disabilities into their regular curriculum, including pupils with severe mental and multiple disabilities. This occurs most often at pre-school and compulsory school and is becoming more frequent also at upper secondary school level. There are, however, six special schools at the compulsory school level and some special units at the compulsory and upper secondary school level. No special schools for disabled pupils exist at the upper secondary school level. Extra teaching hours are provided to schools wishing to give special support to individuals or groups of pupils so that they can either follow the ordinary curriculum or a special programme. Many upper secondary schools now provide extra support to pupils who have difficulties with reading and writing.

2.3. Upper secondary education

2.3.1. The development of the comprehensive school system

The upper secondary school system present in Iceland today was to a great extent developed during the 1970s and 1980s, when general or academic courses of study and vocational education were integrated under the same roof in new comprehensive schools (*fjölbrautaskóli*). This change was made without any major legislation. There is, however, a legal authorisation from 1973 which was the basis for all comprehensive schools built before1988.

2.3.2. The Upper Secondary School Act 1988

After a long period of work on a legal framework for upper secondary school, new legislation was adopted by the Althing in 1988. The Act covers study at upper secondary level which commences after compulsory school level and extends to university level. It replaced some 20 earlier acts on specialised schools and other arrangements in the educational system. According to this Act upper secondary schools include grammar schools, comprehensive schools, industrial vocational schools and schools providing specialised training at upper secondary level. The adoption of the Act marked the end of a 20-year period of widespread experimentation and change in the upper secondary school. The Act as such hardly caused a change in direction in the school system; it was first and foremost a confirmation of a *fait accompli*.

2.3.3. The present

2.3.3.1. The Upper Secondary School Act 1996

The core of the Upper Secondary School Act 1996 is based on the 1988 Act, but differs in five important respects: the structure of study, entrance requirements, curricula and evaluation, continuing and adult education, and last but not least vocational study. Provisions on the role and administration, staff, establishment, construction and operation of upper secondary schools are, on the other hand, unaltered for the most part.

2.3.3.2. Structure of study

With regard to the structure of study, the 1996 Act states that the types of programmes of study in upper secondary school are divided into vocational, academic, artistic and general programmes. All types of programmes of study shall offer some possibilities for further education. Vocational programmes include study in the certified trades (*löggiltar iðngreinar*) and other vocational study, while a regulation will prescribe the trades subject to legal certification. These programmes will be described in Chapter III. The three academic programmes, with specialisation in languages, social sciences and natural sciences, are to provide preparation for university-level study. Artistic programmes provide preparation for further study in fine arts or music in special schools or schools at university level. A general programme provides preparation for study in the three abovementioned types of programmes and may also form part of such study.

Each programme of study comprises a programme core, area of specialisation and options. The proportions of each is to be prescribed in the national curriculum guide and may vary from one programme to another. The programme core is compulsory, the optional area is the programme specialisation and the options provide pupils with the possibility of acquainting themselves with subjects from other programmes of study.

2.3.3.3. Entrance requirements

According to the law, anyone who has completed compulsory school, or received an equivalent basic education, or has reached the age of 18, is entitled to commence study in upper secondary school. Legislation also stipulates that disabled students should study in regular schools as far as possible but that the Ministry of Education can allow special departments for the disabled in upper secondary schools. The law, however, makes provisions for defining entrance requirements for specific courses of study. These requirements are to be defined in the national curriculum guide. The main reason for this option is the high drop-out rate, and the intention to guide young people towards study suitable for each individual, and to encourage a more goal-oriented study at the compulsory school level. At the same time, special emphasis is put on strengthening guidance and counselling at the compulsory and upper secondary school levels.

2.3.3.4. National curriculum guide

The chapter of the Act which deals with the curriculum states that the Minister for Education will publish a national curriculum guide for upper secondary schools, defining the general aims of the schools, the objectives of the individual programmes of study and subjects, and prescribing final requirements. It will provide instructions on the evaluation and requirements of pupils, as well as on practical training. Each school shall publish a school curriculum guide, on the basis of the national curriculum guide, providing information on the studies offered, the school's operations, methods of instruction, evaluation and management practices, such as quality management. Each school shall also indicate how it intends to achieve the objective of upper secondary schools to encourage the overall development of pupils in order to prepare them as well as possible for active participation in a democratic society. Each upper secondary school shall introduce procedures for the evaluation of school activities, including instructional and management practices and external connections.

2.3.4. The credit unit system

An essential characteristic of the Icelandic secondary education is the credit unit system (*áfangakerfi*) that was created under influence from abroad, i.e. from the United States and the United Kingdom, but it soon acquired completely Icelandic features. A peculiar characteristic of the credit unit system is that one standard system applies to all the courses of study at upper secondary level. All upper secondary students, regardless of their specific course of study go through the same initial subjects such as Icelandic, English and mathematics.

In the credit unit system the study in each field is divided into units in a sequence where each unit is a prerequisite for the next one. The size of each unit is measured in credits in such a way that each credit equals two lessons per week for the length of one term.

The credit unit system makes it possible for the students to complete pre-defined education at upper secondary level and later add to that new education without having to start again from the beginning. This gives students more freedom to change their course of study if they like and to determine their education according to their personal needs, interests and desires. Furthermore, this makes the speed of the studying process very flexible. During the period 1975–85 most upper secondary schools introduced a credit unit system and unit descriptions were more or less standardised between them.

2.4. The size and shape of the upper secondary school system

2.4.1. The number of schools

In 1997 there were 35 upper secondary schools in Iceland, including 9 grammar schools (*menntaskólar*), 17 comprehensive schools (*fjölbrautarskólar*), 2 industrial vocational schools (*iðnskólar*) and 7 specialised schools (*sérskólar*) for specific occupations.

2.4.2. Types of schools

The primary role of grammar schools is to prepare students for university entrance examination but some of them also offer programmes of vocational study. Industrial vocational schools offer academic study to a certain extent besides different kinds of vocational study programmes. Vocational schools and comprehensive schools offer a multitude of programmes: academic, vocational and artistic. The specialised schools belonging to the upper secondary school system offer only vocational study. They are navigation and marine engineers' schools (2), home economics schools (2), agricultural schools (2) and a horticultural school (1). There is a special Act on agricultural and horticultural schools, which places them under the administration of the Ministry of Agriculture.

Table 7 shows the number of students by type of school and the proportion of initial vocational training (IVT) in day schools, according to figures from the Ministry of Education.

Table 7. **Proportion of students in IVT by type of educational institution, autumn term 1997**

	Number of schools	Number of pupils in academic study	Number of pupils in vocational study	Total number of pupils	Proportion in initial vocational training
Grammar schools	9	5 424	543	5 967	9.1
Comprehensive schools	17	6 322	2 080	8 402	24.8
Industrial vocational schools	2	346	1 619	1 965	82.4
Specialised schools	7	0	412	412	100.0
Total	**35**	**12 092**	**4 654**	**16 746**	**27.8**

These figures include only day school pupils.

SOURCE: *MINISTRY OF EDUCATION*

The table shows that only 28 % of the total group of pupils at the upper secondary school level in Iceland are attending vocational programmes of study. This includes some 9 % of pupils in grammar schools, the largest group of whom are studying within the area of hotel, catering and tourism which was built up as a new department under the grammar school in Kópavogur in 1996. In the industrial vocational schools 82 % of the pupils are in vocational study. Those pupils who are not enrolled in vocational study (18 %) are either taking preparatory study, study in a technical stream for a university entrance diploma, or general study. General study is a programme for those that are undecided as to what vocational study they intend to pursue or have not been admitted to the trade study which they wish and are thus temporarily waiting. This would appear to be the most numerous group. As a conclusion we could say that the denomination of different types of schools, with the exception of the specialised schools, is merely historical and not necessarily indicative of their function or activities.

2.4.3. Size of schools

Two of the largest upper secondary schools have over 1 500 day school pupils, comprising together some 18 % of all pupils at upper secondary level. In 1996 there were 12 upper secondary schools with 100 pupils or less in each and most of them offered specialised study. The total number of pupils in these schools was less than 600, which represents less than 4 % of all pupils at upper secondary level. Twelve upper secondary schools, seven of them in the Reykjavik area, had over 600 pupils each, and their total number of pupils represented almost 67 % of all upper secondary school pupils.

2.4.4. Number of pupils

In the school year 1997/98 there were 18 202 pupils attending upper secondary school. In 1995, 87 % of pupils in the cohort concerned enrolled in upper secondary schools; one year later 77 % of the cohort remained in secondary school, but only 66 % were still there two years later when these pupils had reached 18 years of age.

2.4.5. Drop-outs

During the period 1990–93 a study was made of the school progress of the cohort born in 1969. The results showed a very high dropout rate of pupils. Figures in Table 8 show the educational situation in the group six and eight years after the completion of compulsory school. Just over half of the cohort (55 %) had not completed a specific programme of study at upper secondary level six years after completing compulsory school. As mentioned previously, both academic and vocational programmes involve an average of four years of study. There are a number of indications, however, that people do begin to study again despite having left school earlier, since eight years after completing compulsory education almost 58 % had completed a specific programme of study. In spite of this, the dropout rate is high, since 42 % had not completed a specific programme of study eight years after completing compulsory school.

Table 8. **Educational level of 1969 cohort six and eight years after completing compulsory school**

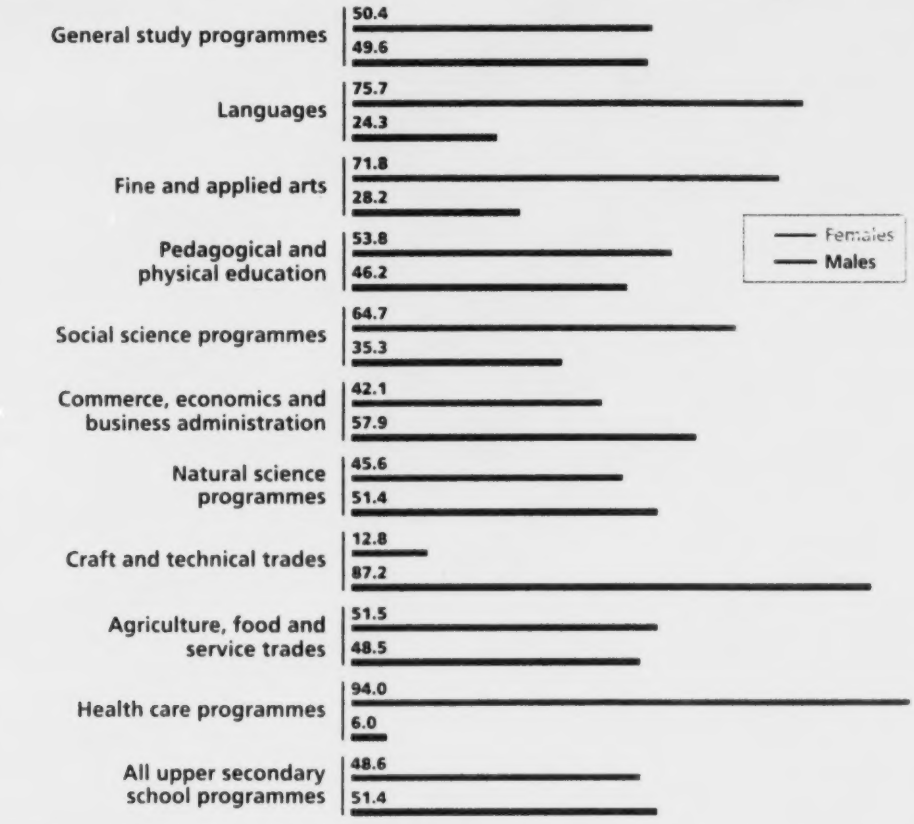
Educational level of pupils born 1969 in 1991 and 1993	**1991 %**	**1993 %**
University entrance diploma and higher study	34.6	42.3
Completed two-year academic programme	3.1	2.3
Completed vocational study	7.5	13.3
Total having completed specific study	**45.2**	**57.9**
School attendance without completing study	40.5	32.6
No upper secondary study	13.1	9.5
Total dropping out	**53.6**	**42.1**
No information	1.3	0.0
Total	**100.0**	**100.0**

SOURCE **GERÐUR G. ÓSKARSDÓTTIR, 1995.**

2.4.6. Ratio of males to females

The number of males studying at upper secondary level is higher than the number of females (Figure 7). It is clear that the two sexes tend to choose different study programmes; women tend to choose health care, social sciences, fine arts and language programmes. Men, however, are to be found in a sizeable majority in the certified trades and technology programmes.

Figure 7. **Gender breakdown in upper secondary schools by programme of study, 1997 ***



* Students in senior departments are not included in these figures.

SOURCE **STATISTICS ICELAND, 1998**

2.5. University level

2.5.1. History

Until the 20th century, most Icelanders who attended further education, did so abroad, primarily in Copenhagen. This was not unnatural, Iceland being under Danish rule. Academic or university education in the modern sense began in Iceland in 1847. The advance of Reykjavik as a centre of administration and education led to the establishment of a Theological Seminary, augmented in 1876 by a Medical School and in 1908 by a School of Law. These three institutions were merged in 1911 when the University of Iceland (*Háskóli Íslands*) was established and a fourth faculty, Philosophy, was added. The development of education at university level, culminating in the establishment of the University of Iceland, was in fact an important factor in the struggle for independence.

Significant modifications and reforms have been made to the university-level educational system especially after 1970. The variety of study alternatives has been increased particularly in shorter undergraduate courses. New institutions have been established and institutions, which previously operated by definition at upper secondary level, have been transferred to university level. At the same time, the number of students in the older universities has increased steadily.

Institutions at university level offer courses which lead to the acquisition of a certificate and/or a degree or a title. These are awarded when the student successfully completes the examinations, projects or thesis described by the subject regulations. A thesis or research project is nearly always a pre-requisite for obtaining a degree. Some degree courses may lead directly to professional qualifications, while in other cases additional training specific to the profession, often additional specialised study programmes, sometimes combined with practical training, are required.

There are 10 institutes in Iceland offering education at university level. Seven of them offer studies leading to a university-level diploma (certificate or professional title), three offer study leading to a university degree and two offer post-graduate studies. Three universities in Iceland (the University of Iceland, the University of Akureyri (*Háskólinn á Akureyri*) and the University College of Education (*Kennaraháskóli Íslands*)) have research responsibilities and they all offer more than one programme of study.

Students entering university are required to have passed the Icelandic matriculation examination, to have finished other equivalent education or to have, in the view of the university in question, acquired equivalent maturity and knowledge. Universities can, if needed, impose further admission requirements, including admission tests. To enter a post-graduate programme a bachelor's degree (BA, BSc or BEd) in the area of study is required.

2.5.2. The University of Iceland

Approximately 67 % of all students studying in Iceland at university level are enrolled at the University of Iceland, which has operated since 1911 and where 90 % of all university-level research is carried out. There are nine faculties: Social Sciences, Natural Sciences, Humanities, Theology, Law, Dentistry, Engineering, Medicine, and Economics and Business Administration, with many of them comprising different departments or programmes of study. In 1998/99 some 5 600 students were enrolled and the permanent faculty of the university number around 400. Each year the University of Iceland offers over 1 100 different courses and awards over 50 different degrees and diplomas. Masters study programmes have been introduced in many faculties and efforts are underway to develop an organised doctoral programme in several areas of study.

2.5.3. Other schools at university level

The University at Akureyri was founded in 1988 and offers study leading to a BSc degree in administration, nursing and fisheries studies in addition to a general BEd programme. In 1998/99 there were some 504 students and 24 permanent members of faculty.

The University College of Education (UCE), was founded in 1972 when the Teacher Training College was transferred to university level. On 1 January 1998, the Icelandic College for Pre-school Teachers (*Fósturskóli Íslands*), the Icelandic School of Social Pedagogy (*þroskaþjálfaskólinn*) and the Icelandic College of Physical Education (*Í þróttakennaraskólinn*) merged into the UCE. The College offers a three-year programme of study for the BEd degree, which confers the right to teach in compulsory school, and recently introduced an MEd programme. In 1998/99 some 1 260 students were enrolled and there were 40 permanent members of faculty.

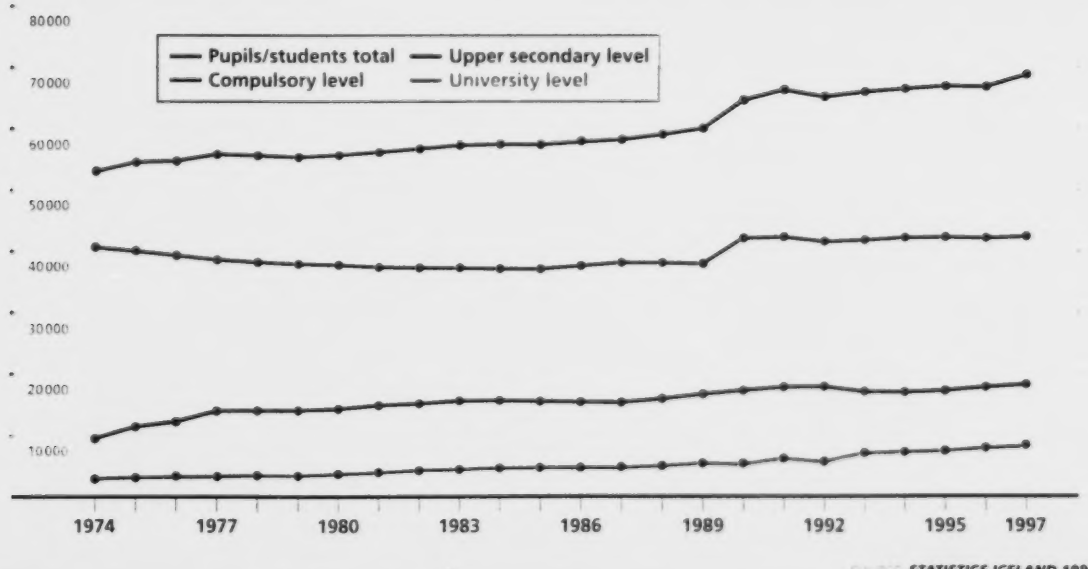
The other seven institutions at university level are: the Agricultural College at Hvanneyri (*Búnaðarháskólinn á Hvanneyri*); the Icelandic College of Engineering and Technology (*Tækniskóli Íslands*); the Cooperative College at Bifröst (*Samvinnuháskólinn að Bifröst*); the Icelandic School of Arts and Crafts (*Myndlista- og handíðaskólinn*); the Dramatic Academy of Iceland (*Leiklistarskóli Íslands*); the Reykjavík College of Music (*Tónlistarskóli Reykjavíkur*); and the Reykjavik School of Business (*Viðskiptaháskólinn í Reykjavik*). The Act on Education in Drama, Music and the Fine Arts at University Level, No 43/1995, is aimed at combining the arts colleges into a Fine Arts Academy (*Listaháskóli*).

A large number of Icelanders still go abroad to study, mostly at university level. Most of them complete undergraduate studies in Iceland before going abroad.

2.6. Number of pupils at the three educational levels

The total number of pupils and students at the three school levels — compulsory, secondary and university — is shown in Figure 8 for the period 1974–97. Pupils at pre-school level and university students abroad are not included. Table 9 shows the increase in numbers of students and pupils between 1974 and 1997 together with the increase in the total population for this period.

Figure 8. **Pupils/students by school level 1974 – 97**



SOURCE: STATISTICS ICELAND 1999.

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The increase in total number of school attendees is in line with the increase in population over the period. However the number of compulsory school pupils is fairly constant due to decreasing fertility over the period (the jump in 1990 is caused by the addition of 10th grade to the compulsory school). The increase in the number of university students is due both to the fact that several secondary schools gained university status during the period and to higher numbers attending traditional university programmes. This is consistent with the ever-increasing number of secondary school pupils attending the programmes of study which lead to university matriculation at the expense of conventional vocational study programmes.

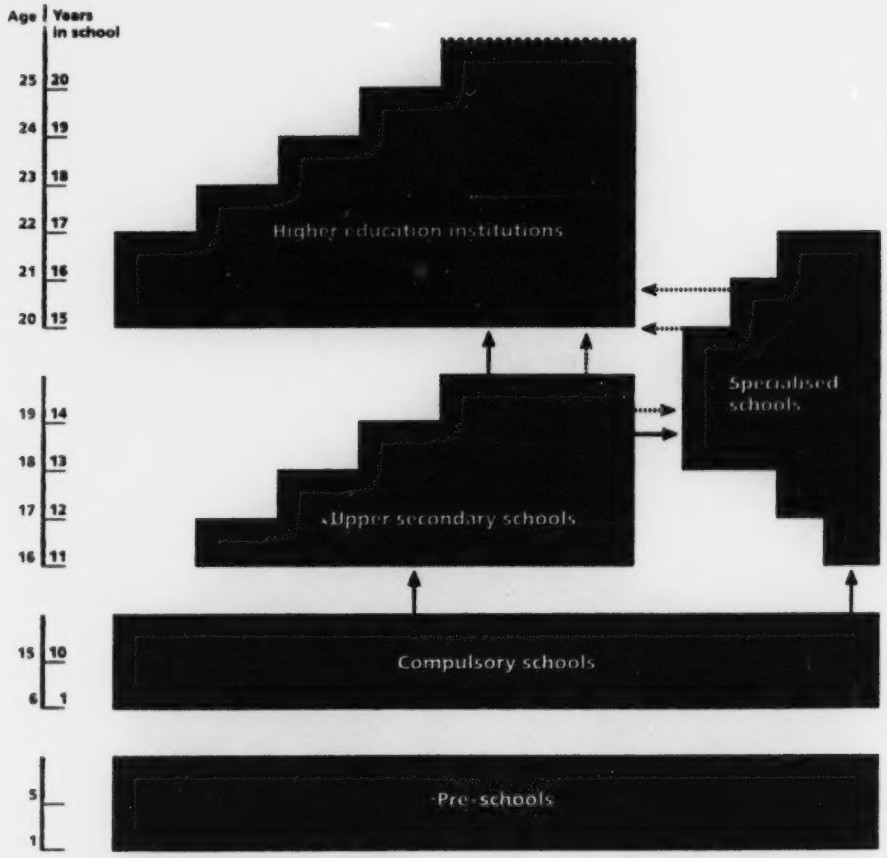
Table 9. **Increase in number of students between 1974 and 1997**

	1974	**1997**	**Percent increase**
Compulsory level	40 628	42 318	4.2
Secondary level	9 447	18 202	93.0
University level	2 865	8 180	285.5
Total number of students/pupils	**52 940**	**68 700**	**29.8**
Total population	**216 628**	**272 381**	**25.7**
Pupils/students as percentage of the total population	*24.4 %*	*25.2 %*	

SOURCE **STATISTICS ICELAND 1998**

An overall picture of the educational system in Iceland is shown in Figure 9, overleaf.

Figure 9. **Education system in Iceland 1998–99**



Open access

Access to a specific programme of study/school, subject to specific requirements.

General academic and vocational programmes of study in grammar schools, comprehensive schools and industrial-vocational schools.

General academic programmes take 4 years of study (140 credits) and conclude with a matriculation examination (*stúdentspróf*) which has traditionally given access to almost all programmes of study in higher education institutions.

Vocational study may last from 1/2 to 4 years and there are possibilities of further education after each stage. Completion of final examinations after 3 to 4 years of vocational study, i.e. journeyman's examination (*sveinspróf*), does not generally fulfill the entrance requirements of higher education institutions. Access to higher technological or civil engineering studies requires an equivalent of two years of general academic study, mostly in science and mathematics, after completing the journeyman's examination in the field in question. If a journeyman wishes to complete the *stúdentspróf*, about 50 credits from his former vocational study will be accepted.

SOURCE **MINISTRY OF EDUCATION, SCIENCE AND CULTURE, APRIL 1999.**

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Chapter III The vocational education and training system

3.1. Historical development of vocational education and training (VET)

3.1.1. Four periods

Viewed from a historical perspective, the development of the vocational education system from the turn of this century until the present day can be divided into four periods, roughly corresponding to social and economic developments during this same era. The vocational education system grew from different roots and took a different form than did the general Icelandic education system until after the middle of this century. Attempts to coordinate, or even unite, these two systems have left their mark on the educational debate during the latter half of the century.

The first period extends from the last quarter of the nineteenth century up until the beginning of World War II. The second period began with World War II and concluded in the late 1960s, when the third period started, concluding with the adoption of new legislation on coordinated upper secondary schooling in 1988. The present period began after 1990, when the educational authorities concluded that new legislation was needed for the entire upper secondary level and, in fact, for compulsory school and university-level education as well.

3.1.2. The foundations of VET (first period)

The foundations of the VET system which exists in Iceland today, were laid during the last quarter of the nineteenth century and first decades of this century. During this period specialised public schools were founded offering vocational training in agriculture, fisheries and health services, in addition to the Commercial College of Iceland (*Verslunarskóli Íslands*), an independent, self-governing institution. Study in certified trades was to some extent in a class of its own.

The craftsmen's association in Reykjavik was established in 1867 in order to strengthen the situation and well-being of craftsmen. At the beginning of the nineteenth century there were only four craftsmen in Reykjavik, but their number had grown to 40 by the middle of the century. At that time, Reykjavik had established itself as the real capital of Iceland. Up until that time, foreign craftsmen had been imported to oversee the largest construction projects and the establishment of the association was an attempt to reverse that development. An evening school was established in 1869 and a Sunday school for artisans in 1873 that operated until the turn of the century, teaching technical and common subjects. An evening crafts-school was formed in 1901 and the Reykjavik Technical School (*Iðnskólinn í Reykjavík*), was formally founded in 1904 to provide training and was operated by craftsmen's associations. Study proceeded in accordance with a contract between a master craftsman and apprentice and involved practical training in the workplace together with some in-school study.

The first legislation on education in certified trades was adopted in 1893, based on a Danish law of 1889. This legislation laid the foundations for the apprenticeship system as it is known today, with clauses on an agreement with a master craftsman, on the duration time of such agreements, and a journeyman's examination. The first regulation on education in certified trades was issued in 1903, which defined the requirements for a journeyman's examination in various subjects. New legislation in 1927 shortened the weekly working time of apprentices and strengthened the

requirements in terms of formal teaching in school as a prerequisite for taking a journeyman's examination. A new law was passed in 1935, strengthening the power of the craftsmen themselves to make decisions as to the number of apprentices. Schools were established outside Reykjavík and under this system the number of apprentices tripled. Up until World War II some 50 to 100 apprentices graduated each year, or 2 to 4 % of each cohort. Instruction was generally offered in some 30 trades, with the largest number of students in carpentry, cabinet-making, masonry, electrical work, metalworking, painting and printing. The craftsmen's associations operated the schools up until 1955.

3.1.3. World War II and after — the second period

Changes in Icelandic society during and following World War II have been described briefly earlier. These changes were followed by an increase in the demand for craftsmen. To fulfil the demands of the times, the apprenticeship system needed some reform.

The adoption of the Educational Act 1946 strengthened the lower secondary sections of schools and established pre-vocational programmes within these sections. A new Industrial Vocational Education Act was adopted in 1949, establishing the Industrial Training Board (*Iðnfræðsluráð*), which comprised representatives of master craftsmen and journeymen. The Board was in particular intended to ensure that apprentices in the certified trades received satisfactory practical training in the workplace and trade representatives were appointed throughout the country to provide such supervision.

In 1955 a new Industrial Vocational Schools Act was passed whereby the State and local authorities took over responsibility for their operations from the craftsmen's associations. The schools now operated during the day for the first time and apprentices were to attend classes for eight weeks each year. The Act also authorised the schools to offer apprentices practical training within the school itself.

After 1960, there was much discussion in Iceland, as in many other western countries, about vocational training and its value for society. The idea that the education of citizens was a key factor in economic prosperity and growth gained momentum. The vocational training system, not least the apprenticeship system, was subjected to close scrutiny. Proposals called for a one-year course of basic study in vocational schools in all the main trades, and the issuing of an authorisation for them to operate supplementary programmes. A new Act on Industrial Vocational Education was passed in 1966, which marks the beginning of the next period in the development of vocational training in Iceland.

3.1.4. The third period 1966–90

3.1.4.1. The Act on Vocational Education 1966

The basic principle of the 1966 Act was to offer the option of practical training in the industrial vocational schools, instead of its being provided by master craftsmen in their workplaces. By virtue of the Act, a one-year basic programme in metalworking was established in 1968 and a basic programme in woodworking in 1970 at the Reykjavik Technical School. Apprentices in the electrical trades got their basic programme in 1977. The basic programme included practical training as well as theoretical study. The programme had two main objectives: on the one hand, to broaden the basic knowledge of pupils and, on the other, to encourage master craftsmen to take on apprentices. This did not, however, prove to be the case in many fields. It proved difficult for pupils to obtain apprenticeship contracts with master craftsmen and as a result supplementary programmes were set up in the industrial vocational schools.

3.1.4.2. Preparation for comprehensive upper secondary school

The establishment of school-based vocational programmes as mentioned above points to a new overall policy on upper secondary education that emerged in the beginning of the 1970s. At the core of this policy was the idea of a comprehensive school, which strove to unite all forms of education in the same schools, offering theoretical and vocational courses of various kinds side by side, organised in a credit unit system. The underlying thought was that education was the key to economic growth; that all young people should have an equal opportunity to be educated, and that integrating the various courses of study would facilitate the adaptation to changing economic and social conditions. The supporters of this policy also believed that such a comprehensive, credit unit system would offer a tool to operate a diversified upper secondary school system within the economic limits the small society could manage.

3.1.4.3. The establishment of the comprehensive school

The Icelandic parliament, Althing, did not pass a bill on the matter, and there was no overall policy enshrined in law for quite some time. However, a special Act authorising the establishment of comprehensive schools was passed in 1973, and the first of these schools opened in Reykjavik in 1975. It soon became the largest upper secondary school in the country at upper secondary level. The school offered general academic study, study programmes with a vocational component, and vocational programmes, most of which were in the certified trades and included both basic and supplementary programmes.

The comprehensive form soon gained followers inside as well as outside the capital area, as the utilisation of common course units made it possible to offer more varied studies in small communities. It was not uncommon, especially in rural areas, for industrial vocational schools and lower secondary schools with additional classes (see Section 2.1.6) to join forces in a new comprehensive school. In addition, the course-unit system was standardised throughout the country so that pupils could begin their study in their own district and conclude it in a larger school in an urban area. During the period 1975–82, 10 schools adopted the comprehensive system, five of them outside the Reykjavik area.

As a result of the lack of overall legislation on upper secondary level education, it fell to the Industrial Training Board, the Ministry of Education and the school managers to formulate the policy and lead the development of academic and vocational education at upper secondary school level for nearly two decades. During this period, putting up buildings and providing equipment were, generally speaking, priorities. Funds had to be acquired, teachers hired, etc. This did not leave much room for systematic development work on the content of the education, study materials or teaching methods. In structuring these factors the schools were bound by the necessity of coordinating them with other secondary comprehensive schools and adapting them to the credit unit system. In 1986, the Ministry of Education started to write curricula for the academic subjects in upper secondary schools. The first step was to coordinate the basic credit unit in each field, a task that was given to the teachers' associations of each subject.

3.1.4.4. Development of curricula — adaptation of VET to the comprehensive school system

The 1966 Act on Vocational Education and Training required an Education Committee to be set up for each skilled trade for the purpose of shaping the content of the education and writing a curriculum. Educational Committees, comprising a master craftsman, a journeyman and a vocational teacher, were appointed for about 30 independent crafts and trades. Between 1972 and 1988, curricular guides were composed for most of these trades under the supervision of the Industrial Training Board.

As vocational training was integrated into the upper secondary comprehensive schools more weight was given to general subjects. This was done to increase general qualifications and thus increase the flexibility of the would-be skilled tradesmen and make it easier for them to add to their education. This was meant to kill two birds with one stone: to increase the adaptability of the schools to the ever-changing needs of the labour market and to provide more equality for students, in terms of gaining admission to further studies at university level. During the 1980s, most industrial vocational schools adopted the credit unit system and adapted study in common subjects to practice in comprehensive schools, thereby increasing the emphasis on general academic study.

3.1.4.5. Upper Secondary School Act 1988

The abovementioned changes were formalised with a new law on upper secondary education in 1988 and with an extension in 1989. The objective of upper secondary schools is defined as offering education suitable for everybody at the age of 16 to 19 in addition to offering adult education at the same level (see Section 2.3.3). Figure 10 shows the main milestones of the system in terms of legislation.

Figure 10: **Legislation affecting the development of the vocational education and training system 1946 – 96**

1944
1945
1946 Act on the Educational System and on Compulsory Schooling
Act on Lower Secondary Education
1947
1948
1949 Industrial Vocational Education Act
1950
▼
1954
1955 Act on Industrial Vocational Schools
1956
▼
1965
1966 Act on Industrial Vocational Education
1967
▼
1972
1973 The first Act to authorise the establishment of a comprehensive school
1974 Act on the Educational System
1974 Act on Compulsory Schooling
1975
1976
1977
1978 Act on Certified Trades; Act on Agricultural Education
1979
▼
1987
1988 Upper Secondary School Act
1989 Act on Workers' Educational Association
1990
1991
1992 Act on Vocational Education in Industry
1993
▼
1995
1996 Upper Secondary School Act

3.2. The present system of initial vocational education and training

3.2.1. Vocational study

The part of the Upper Secondary School Act 1996 dealing with academic study has already been described in Chapter II of this report. The part on vocational study states that such study must further the general education of pupils, prepare them for specific jobs and give them an understanding of the role of enterprises and workers in industry. Study is at the same time intended to encourage pupils to maintain and extend their knowledge through continuing education or further study.

Vocational study is divided between the school and the workplace, or takes place only in school, with emphasis placed on having studies reflect the current needs of the occupational sectors. Practical work and on-the-job training in the workplace is based on the provisions of the national curriculum guide and rules concerning workplace instruction in the occupation concerned. A special on-the-job training contract for workplace instruction is concluded between a school and workplace or between apprentice and employer. Most vocational programmes last for four years, but in some areas one- or two-year programmes are available.

3.2.2. Social partners

As we have seen, study in the certified trades was completely the responsibility of the tradesmen and their organisations themselves until well past the middle of this century. The direct influence of the two sides of industry on studies decreased as the State took over responsibility for the operation of vocational schools and more and more of the initial vocational education became school-based. However, from the late 1960s the certified trades had educational committees for each trade. In the Upper Secondary School Act 1988, this arrangement was altered and an instructional committee of five persons appointed for each group of related trades. The representatives of both sides of industry formed a minority in these committees. At the same time the role of the Industrial Training Board (*Iðnfræðslurað*) was changed. It now served in an advisory capacity, instead of having executive power in affairs concerning vocational training; the executive aspects, including supervision of curriculum and of apprentice contracts, holding journeymen's examinations, and all related data collection, were transferred to the ministry. This arrangement did not prove satisfactory and comprehensive changes were thus introduced with the Upper Secondary School Act of 1996. The present role of the social partners is discussed further in Chapter IV.

3.2.3. Initial vocational education

3.2.3.1. Definition

Initial vocational training (IVT) as described in this report has the primary objective of preparing pupils for specific jobs or for employment in specific areas of industry or service. Furthermore, it must be organised as a separate programme of study at upper secondary level lasting at least one term in school.

3.2.3.2. Classification

Table 10 is an official classification of courses of study in upper secondary schools. If we generalise we can say that general programmes, studies in languages, social sciences and natural sciences are academic, while the others are vocational or vocationally orientated. According to this classification, about 60 % of the pupils attended academic courses and about 40 % vocational courses.

Table 10. **Secondary school pupils in 1997**

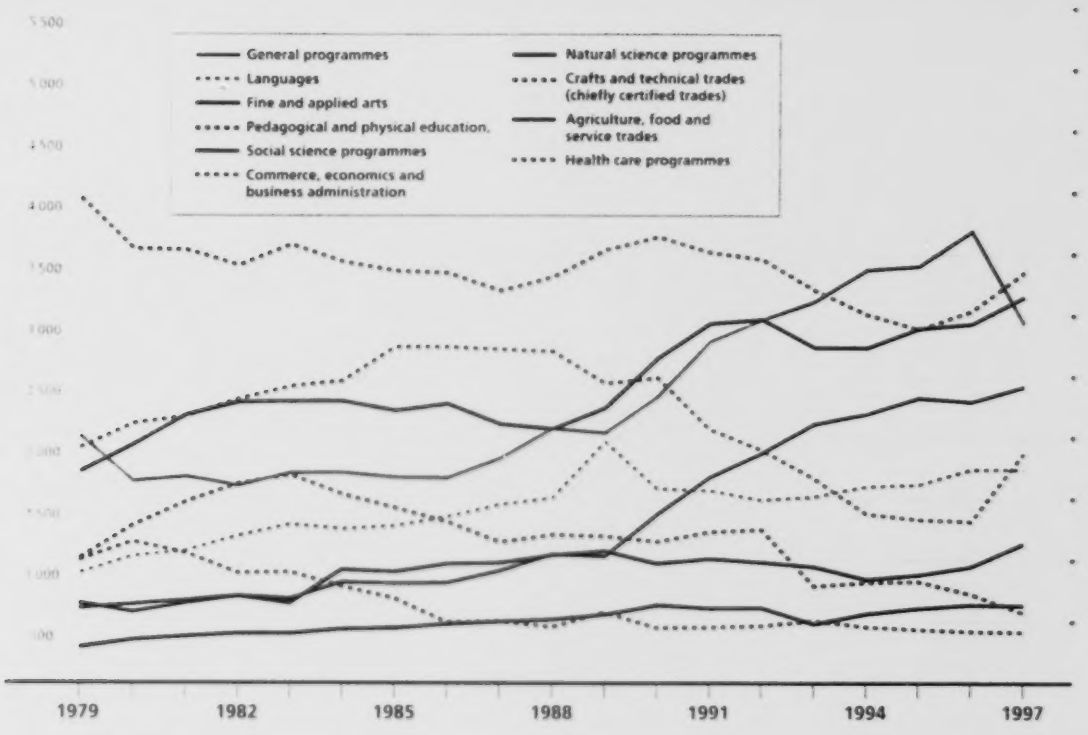
Upper secondary level	18 203	100 %
General study programmes	2 924	16.1 %
Languages	1 740	9.6 %
Fine and applied arts	632	3.5 %
Pedagogical and physical education	571	3.1 %
Social science programmes	2 415	13.3 %
Commerce, economics and business administration	1 870	10.3 %
Natural science programmes	3 150	17.3 %
Crafts and technical trades	3 351	18.4 %
Agriculture, food and service trades	1 135	6.2 %
Health care programmes	415	2.3 %

SOURCE: STATISTICS ICELAND 1999

3.2.3.3. Number of pupils

The development in number of pupils attending different programmes of study in the period 1979–97 is shown in Figure 11. There is an increase in the number of pupils in all academic studies, which by definition are direct preparation for university matriculation i.e. general programmes, languages, social science programmes and natural science programmes. Most of the vocational programmes suffered a decline in number of pupils over the period or at best a very slight increase.

Figure 11. **Number of pupils in upper secondary schools 1979–97**



SOURCE: **STATISTICS ICELAND 1999.**

3.2.4. Two categories of initial vocational training

IVT can be divided into two main categories: vocational training which confers legally recognised, certified qualifications and training which does not lead to certified qualifications.

3.2.5. Certified qualifications

The following vocational training confers certified qualifications.

- study in the certified trades;
- vocational study within the health-care system;
- study for officers of transportation vehicles in the air and on sea;
- law enforcement officers.

Certification to use the title and enjoy the occupational rights of tradesmen is based on a long tradition, the roots of which reach back to the European trade guilds of the Middle Ages. The objective of the certification is, firstly, to make tradesmen legally responsible for the quality of the work they carry out, and thereby to ensure the safety and rights of consumers. Secondly, its purpose is to strengthen the position of these occupational classes in the labour market.

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3.2.5.1. Certified trades

A regulation set by the Ministry of Education, Science and Culture in 1995 deals with the major issues of certified trades. The regulation decides which trades shall be certified, the form of apprenticeship and training contracts, the rights and obligations of the signatories, arrangement of journeyman's examinations and the attainment of the rights of a master craftsman. A new regulation on apprenticeship and training contracts and journeyman's examinations was adopted in April 1997.

3.2.5.2. Fifty different trades

There are approximately 50 certified trades, of which 35 are active, i.e. trades in which some apprentices are generally studying. A list of all the certified trades is shown in Table 11.

Table 11. **Certified trades in Iceland classified by occupational groups**

Construction and installation
Cabinet making
Carpentry
House painting
Masonry
Plumbing
Upholstery
Wallpaper hanging

Design, arts and crafts
Gold and silver smithing
Engraving
Watch and clock repairs
Dressmaking
Tailoring
Furriery
Hat-making
Shoe-making and repairs
Saddlery
Musical instrument making
Wood carving
Glasswork
Stone masonry

Electricity and electronics
Electrical installation work
Electro-mechanics
Electronic installation and repairs
Power plant installation and repairs
Telephone installation and repairs

Food and catering industries
Baking
Confectionary
Cookery
Dairy technology
Meat processing
Waiting

Information, communication and media
Graphic trades:
- Bookbinding
- Pre-press
- Printing

Photography:
- General photography
- Personal photography

Metal and mechanical trades
Aircraft engineering
Blacksmithing
Mechanical engineering
Refrigeration (specialisation)
Metal turning
Mould making
Net making and repairs
Sheet metal work
Structural and thick plate craft
Shipbuilding and repairs
Structural fabrication
Welding (specialisation)
Yacht and boat building

Personal services
Hairdressing, hairstyling
Cosmetology
Dental technician

Utilisation of land and nature
Landscape gardening

Vehicle and transport
Autobody building and repairs
Automobile repairs
Automobile spray-painting

SOURCE: *REGULATION No 648 1999 ISSUED BY THE MINISTRY OF EDUCATION.*

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3.2.5.3. Structure of study

The study in certified trades usually takes four years and can be structured in three different ways.

(1) Students begin their study by concluding an apprentice contract with a master craftsman or industrial enterprise, after which they spend three or four terms in school (generally in theoretical study only).
(2) Students begin their study in a basic programme which comprises two terms of theoretical and practical basic study at school, after which they conclude an apprentice contract, and then take a further two or three terms in school.
(3) Students first complete five to seven terms at school, i.e. the basic programme and the supplementary programme, and then 4 to 20 months of workplace training.

For some of the certified trades only the first possibility is available, but generally this could be said to be on the way out. In tailoring, beautician and electronics only the third possibility is available. In many certified trades students can choose between alternative study programmes. The theoretical study takes place in industrial vocational schools or comprehensive schools. In subjects like mathematics, Icelandic or English pupils follow partly the same courses as the pupils in academic programmes. Almost all courses of study for the certified trades consist of the same core of academic subjects (25 credits) although the extent of theoretical and practical specialised subjects varies depending upon the trade, as does the relative importance of individual aspects of the study.

3.2.5.4. Entrance requirements

There are few entrance requirements for study in the certified trades except for completion of compulsory school and age-limits in some trades, for instance waiting. It is conceivable that this will be changed in the new national curriculum guide, since the new Upper Secondary School Act authorises the setting of entrance requirements for individual programmes of study.

Students training for the certified trades are on average older than other upper secondary pupils attending day school. The average age of students taking journeyman's examinations is 25 to 26.

3.2.5.5. Journeyman's certificate

Study in the certified trades leads to a journeyman's certificate (*sveinspróf*), which confers the right to work in the trade in question and the right to commence study for a master craftsman's certificate after working as a journeyman for at least one year. A master craftsman's certificate confers the right to train apprentices, operate a business or manage industrial operations in the area of specialisation at a workplace according to the Act on Certified Trades 1978. The journeyman's certificate does not give entitlement to higher education, but certificate holders can be admitted to higher education after taking additional examinations in academic subjects at upper secondary school.

3.2.5.6. Certificate committees

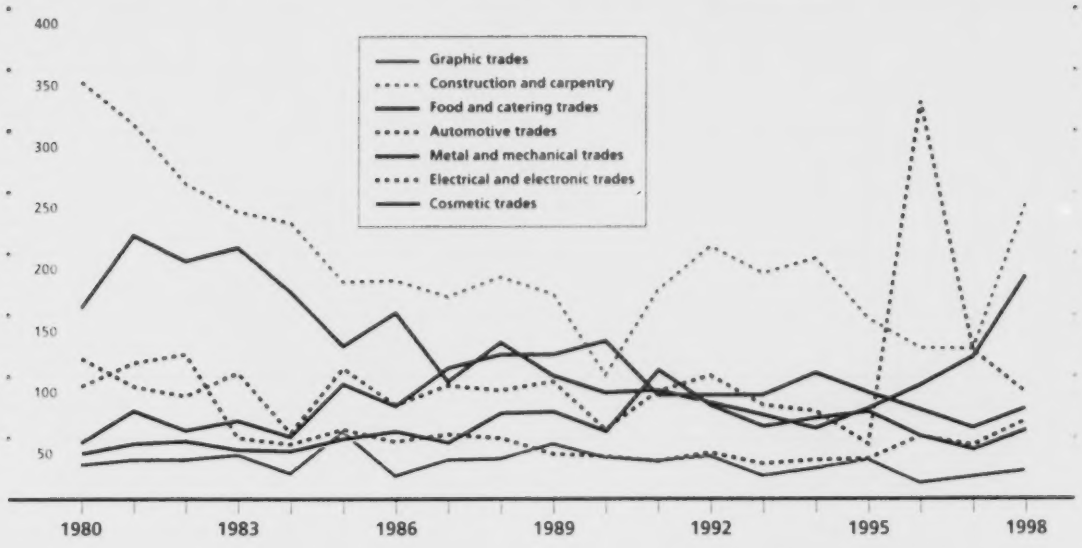
Each of the certified trades has a four-person journeyman's certificate committee, appointed by the Ministry of Education, Science and Culture and comprising representatives of employers and employees in the trade concerned and a person with experience in teaching/instructing within that trade. Examinations for a

journeyman's certificate are administered on a national basis to the extent that there is only one committee for each trade and the examination is the same everywhere in Iceland.

3.2.5.7. Number of journeyman's examinations

The number of individuals taking journeyman's examinations in Iceland has been decreasing on the whole for the last two or three decades. Figure 12 shows that this development has stopped in recent years and even reversed after 1997. This is, however, due to certain measures taken by the educational authorities. The peak reached in the electric and electronic trades in 1996 was caused by the fact that two new trades became certified at the beginning of the 1990s (power plant installation and repairs and telephone installation and repairs). The slight increase in all other trades in 1997 is probably, at least partly, connected to the authorisation giving unskilled workers, with at least 10 years working experience within a certified trade, the possibility to apply for journeyman's examinations without having completed the school-based part of the study. In the 1996 Upper Secondary School Act, it was stated that this authorisation, which had been valid for decades, should be abolished after an adaptation period of two years.

Figure 12. Number of journeyman's certificates each year 1980–98



SOURCE MINISTRY OF EDUCATION, SCIENCE AND CULTURE 1999

3.2.6. Health-care studies

From 1990 onwards the ultimate responsibility for IVT in health-care services was transferred from the Ministry of Health and Insurance (*Heilbrigðis- og tryggingaráðuneyti*) to the Ministry of Education, Science and Culture. The special schools that formerly looked after the training of individual occupational groups were closed; studies were transferred to general upper secondary schools and adapted to fit their course-credit system.

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Vocational study within the health-care system leads to certification by the Ministry of Health and Insurance. The certification of occupational groups in health care doing specific jobs and having specific qualifications is a response to public demands for health-care security, i.e. for exact and proper treatment of patients and other users of the system. For this reason, acts and regulations define the tasks of individual occupational groups and the boundaries dividing them fairly exactly, and studies are organised on this basis.

3.2.6.1. Courses of study

Health-care studies vary considerably both in scope and structure, as they are directed at conferring a variety of qualifications. In general, however, it could be said that considerably more emphasis is placed on general academic study as the basis for specialised study than is the case in the certified trades. Table 12 shows the courses of study and their duration.

Table 12. Certified studies within the health-care system

Course of study	Theoretical and practical study at school	Practical study outside school	Notes
Practical nursing	3 years	16 weeks	Pupils must be at least 18 years old when they commence training
Dental assistant	2 years	36 weeks	Practical study at the Faculty of Dentistry of the University of Iceland
Medical secretary	1 year	24 weeks	Practical study at a health-care institution; university entrance diploma is required
Pharmaceutical technician	2 years	40 weeks	Two years of general preparatory study at upper secondary school is a requirement
Foodstuff technician	2 years	32 weeks	Practical study in a health-care institution

SOURCE: MINISTRY OF EDUCATION, SCIENCE AND CULTURE.

3.2.7. Transport

Study for officers of transportation vehicles in the air or at sea leads to certified occupations and occupational qualifications as navigators, marine engineers, aircraft officers, aircraft mechanics and air traffic controllers. The purpose of certifying such occupations is to ensure transport safety both in Iceland and internationally, and the qualifications are defined in detail in acts and regulations.

3.2.7.1. Navigation studies

Navigation studies (*stýrimannanám*) are divided into four levels, and certificates awarded at each level confer, upon the completion of the required sailing time, specific occupational rights for different sizes and types of vessels. The length of study for the first three is two terms of study each, and six months for the fourth level. Approximately half of the total study is general academic study. The entrance requirements for navigation study are a medical certificate, completion of compulsory school and a minimum of six months sailing time aboard a vessel of over 12 tonnes. The course is presently being restructured and adapted to the course-credit system of upper secondary school.

3.2.7.2. Marine engineering

Study for qualifications as a marine engineer (*vélstjóri*) takes from one to ten terms and is divided into four levels, each conferring specific qualifications. The first level takes one term and confers rights as a machine supervisor, fourth grade. Upon concluding the fourth-level (first grade) marine engineering certificate, the students have unlimited rights to work as marine engineers aboard ships and also in power stations. After an additional 18 months of on-the-job training in a machine shop they can take their examination as mechanics and acquire the title of mechanical engineer. A fourth-level certificate also entitles the student to admission to certain studies at university level.

3.2.7.3. Aviation

The course for a professional pilot's (*atvinnuflugmaður*) licence is conducted by private schools of aviation, where the theoretical part is two terms in duration. Study as an aircraft mechanic is a certified trade and the programme of study is four to five years in duration. The first part of the study, which is of a general nature, can be completed in Iceland, but for the more specialised parts, pupils must attend a specialised school abroad.

Study as an aircraft officer and air traffic controller is under the auspices of the Icelandic Civil Aviation Administration and thus is not part of the public education system. The study programme for air traffic controllers takes three to four years in the form of theoretical courses and on-the-job training. Both types of study require a university entrance diploma and a medical certificate, in addition to which applicants for training as air traffic controllers must pass an aptitude test.

3.2.8. Law enforcement officer

Vocational training as a law enforcement officer (*lögreglumaður*) consists of two terms of study in a special school operated by the Ministry of Justice and Ecclesiastical Affairs (*Dóms- og kirkjumálaráðuneyti*) in addition to at least eight months of on-the-job training between the first and second of these terms. To fulfil the entrance requirements for the study programme applicants must, for instance, have satisfactorily completed two years of general study at upper secondary level. In accordance with a new Law Enforcement Act, which took effect on 1 July 1997, law enforcement officers are now certified as such.

3.2.9. Non-certified trades

A wide variety of study programmes are counted as non-certified trades, for instance training in primary production (fish processing, horticulture, livestock rearing and fish farming), study for draughting, computer study and design, study

programmes in service trades (massage, the travel industry and commercial, secretarial and office studies). The initial vocational education and training that is formally recognised but does not confer certification has a different structure from that of the certified vocational study programmes in several respects.

In the first place the study in non-certified trades usually only takes place at an educational institution while in the certified vocational programmes there is always some on-the-job training. Secondly, there is a basic difference between the two groups with respect to the position of the study programme within the educational system as well as the status of the individuals upon completion of study. The position of individuals in certified occupations is generally stronger. In the third place the qualification requirements for jobs that are not certified are not defined *a priori* in acts and regulations. Final examinations are generally not as well defined, as they do not result in the awarding of a certificate, which confers the right to engage in a certain occupation.

3.2.9.1. Fish processing
Training in fish processing (*fiskeldi*) is intended for workers in the fishing industry, especially foremen and fish graders. It lasts three to four terms, and students must have previously completed two to four terms at upper secondary school. This programme of study is offered at two locations in Iceland. It may come as a surprise that study in fish processing should not be more widespread than is actually the case in this fishing nation. One principal reason for this is that up until now little emphasis has been placed on fully processing catches and that it was possible to train general workers within enterprises and through continuing vocational training (CVT). In addition, the residents of fishing communities throughout Iceland have become accustomed to fish processing from an early age and generally have considerable knowledge of what is involved when they begin work.

3.2.9.2. Agriculture and horticulture
Agricultural and horticultural (*landbúnaður, garðyrkja*) study is offered in specialised schools under the auspices of the Ministry of Agriculture. The programmes consist of both theoretical and practical study as well as on-the-job training. Basic vocational study in agriculture is two years in duration and is offered at two locations in Iceland. It consists of general agricultural study as well as study in various areas of specialisation, such as horse rearing, livestock husbandry and land utilisation. Up to one year's work experience is required for admission to these schools and one of the two schools requires students to have completed two years of general study in upper secondary school for admission. Study in horticulture is offered at one specialised school. Five different programmes of study are offered, three-year programmes in domestic gardening, environmental horticulture, and outdoor and greenhouse market gardening, a landscape gardening programme (which is a certified trade), as well as a marketing and floral decoration programme of two years' duration. To be admitted, students must have completed two to four terms of general academic study at upper secondary school and 7 to 12 months of practical work experience at employment locations recognised by the school.

3.2.9.3. Draughtsmanship
Study in draughtsmanship (*tækniteiknun*) is a three-year school programme and prepares students to work in a draughting firm and as assistants to architects, civil engineers and technologists.

3.2.9.4. Computer studies
The computer training programme (*tölvunám*) takes three years. It is intended as preparation for work in the computer industry including, for instance, looking after personal computers, choosing compatible hardware and software systems, minor programming tasks and maintenance of data in smaller systems, making back-up copies and assisting general users of such systems.

3.2.9.5. Design
The study programme in design (*hönnun*) takes four terms. It is intended as preparation for further vocational study and to train students, for instance, in developing and expanding upon new ideas in handicrafts, applied art and various sorts of industrial production. The programme is offered at two upper secondary schools in the capital area and has enjoyed considerable and growing popularity from the time of its establishment a few years ago.

3.2.9.6. Masseurs
The programme of study for masseurs is of three years' duration and is divided equally between general study, specialised theoretical study and practical training. The programme of study is new and is only offered at one upper secondary school.

3.2.9.7. Commercial studies
The programme of commercial studies (*verslunarnám*) consists of 70 credits and is generally two years in duration. The study takes place in schools only, and is available in most areas of Iceland. A commercial certificate confers the right to obtain a trade licence.

3.2.9.8. Travel services
The following lines of study intended for employees in travel services are offered within the upper secondary school system:

- a two-year theoretical and practical study programme;
- a one-year specialised study programme in travel services after two years of academic study within the languages stream or similar.

In addition, various private concerns offer study programmes for the travel sector of varying duration.

3.2.10. Classification and participation

Some 87 to 89 % of each pupil cohort go on to attend upper secondary school and 25 to 40 % (depending on definition) of them choose to enrol in vocational programmes.

Table 13 shows participation in IVT by age and sex for 1995. IVT in Iceland is based on completion of compulsory school. In several instances there is also a requirement that pupils have completed specific academic study at upper secondary level before commencing their vocational training. For this reason it was not considered necessary to provide a breakdown of participants in IVT by prior education.

The classification of programmes of study in Table 13 follows the ISCED 3 international standard for study at upper secondary level. The following vocational occupations are included under each classification:

- travel study programmes include all training referred to as travel affairs programmes or travel service programmes;
- health-care training programmes include pharmaceutical technology, dental assistance, health care and practical nursing, and massage;
- home economics programmes include training in domestic science, as foodstuff technicians and dietary technologists;
- training in the industrial and technical trades includes the automotive trades, the graphic trades and bookbinding, construction and carpentry, tailoring, furriery and leather trades, metalworking, food and food service trades and electrical trades;
- navigation and marine engineering programmes to first, second, third and fourth levels;
- agricultural and fish processing programmes include agricultural study, horticulture, landscape gardening and fish processing study at upper secondary level;
- commercial studies are two-year programmes leading to a commercial certificate;
- service trades include hotel and catering programmes (cookery and waiting); this classification also includes the cosmetic trades (hairstyling and beautician).

According to this classification there were a total of 5 440 pupils in vocational study in 1995. Most of them were in certified trades and technical studies (50 %) in addition to which a large group was in commercial studies. It is worth noting how few were in studies linked to agriculture and fish processing (2.9 %), particularly in view of the employment prospects for pupils in fish processing upon completing their studies, since fisheries is one of the leading employment sectors in Iceland. If navigation and marine engineering programmes are included, about 10 % of pupils could be said to be in studies linked to the seafood industry.

3.2.10.1. Participation by age groups

Examination of participation in IVT by age group (Table 13) reveals that most of the students (52 %) fall into the age group 19 years or younger, and the proportion decreases with advancing age. Just under half of the students are 20 years of age or older and every sixth IVT pupil at upper secondary school level is 25 years old or more. These figures, however, only include day-school students, and presumably the proportion of older students is higher if students in senior departments are included.

3.2.10.2. Male/female ratio

There are more than twice as many males as females attending IVT, 67 % as compared with 33 %, respectively. The ratio of males to females is even higher in the age group 20 to 24 years, where males are 72 % of the students and women only 28 %. The study choices of both sexes follow the traditional pattern for the most part. Males tend to prefer the certified trades, navigation and marine engineering study. Females are, however, to be found in the majority in the service occupations, travel and health-care programmes. Both males and females follow commercial studies to a fairly equal extent, although women form the majority in the older age groups.

Table 13. Participation in IVT by age and gender for 1995

	19 and younger		20 to 24		25 to 29		30 and older		Total	Proportion of pupils
	Males	Females	Males	Females	Males	Females	Males	Females		
Travel programmes	22	86	9*	31*					148	2.7 %
Health-care programmes	13	196	5	106	3	40	2	83	448	8.2 %
Home economics programmes	95	63	11*	18*					187	3.4 %
Industrial and technical trades	1 119	114	822	137	221	78	190	56	2 737	50.3 %
Navigation and marine engineering study	114	0	152	0	71	0	52	0	389	7.2 %
Agricultural and fish processing studies	19	11	45	31	17	17	9	11	160	2.9 %
Commercial programmes	457	373	28	36	2	27			923	17.0 %
Service industry programmes	36	118	102	108	28	35	10	11	448	8.2 %
Number of pupils	1 875	961	1 174	467	342	197	263	161	5 440	100.0 %
Proportion of total	**34.5 %**	**17.7 %**	**21.6 %**	**8.6 %**	**6.3 %**	**3.6 %**	**4.8 %**	**3.0 %**	**100 %**	

* Applies to 20 years and older.

SOURCE: STATISTICS ICELAND AND STUDENTS' REGISTER.

Table 14 shows the proportion of students in IVT (in day schools) of the total population, broken down by age and gender. It reveals that slightly over 22 % of males aged 16 to 19 were attending IVT in 1995 and slightly under 12 % of females. A little less than 3 % of all Icelanders aged 16 and over were attending IVT, approximately 4 % of all males and slightly under 2 % of females.

Table 14. Proportion of pupils in IVT by age and gender in 1995

	16 to 19		20 to 24		25 to 29		30 and older		
	Males	Females	Males	Females	Males	Females	Males	Females	Total
Total number in vocational study	1 875	961	1 174	467	342	197	263	161	5 440
Total cohort	8 465	8181	10 615	10 313	9 934	9 913	69 614	71 407	198 442
Proportion in vocational study	**22.2 %**	**11.8 %**	**11.1 %**	**4.5 %**	**3.4 %**	**2.0 %**	**0.4 %**	**0.2 %**	**2.7 %**

SOURCE: STATISTICS ICELAND, 1996a AND STUDENTS' REGISTER.

3.2.10.3. Number of apprentices

Table 15 shows the number of apprentices under contract by industrial/economic sector and size of the enterprise where they receive on-the-job training. The data include all apprentices under contract in 1996 regardless of how far they were advanced in their study.

It is not surprising to see how many apprentices are receiving on-the-job training in small enterprises, since small or very small workplaces are characteristic of the Icelandic employment market and economy (see Table 2, p. 24). It is evident in comparison with the 15 EU States that the proportion of the labour force employed in small enterprises is considerably higher in Iceland than is the average in those countries.

Table 15. **Number of apprentices under contract in 1996 by size of workplace and trade**

	Very small enterprises	Small enterprises	Medium-sized enterprises	Large enterprises	Size unknown	Total number of apprentices	Proportion
Automotive trades	37	17	7	14	10	85	5.1 %
Graphic trades and book-binding	8	11	15	21	2	57	3.4 %
Construction and carpentry	383	97	35	6	50	571	34.0 %
Metalworking	49	51	72	48	15	235	14.0 %
Food and catering	54	111	159	23	51	398	23.7 %
Electrical trades	36	4	1	5	8	54	3.2 %
Cosmetic trades	148	1	0	0	40	189	11.3 %
Small trades	33	25	13	8	10	89	5.3 %
Number of apprentices	**748**	**317**	**302**	**125**	**186**	**1678**	**100 %**
Proportion	**44.6 %**	**18.9 %**	**18.0 %**	**7.5 %**	**11.0 %**	**100 %**	

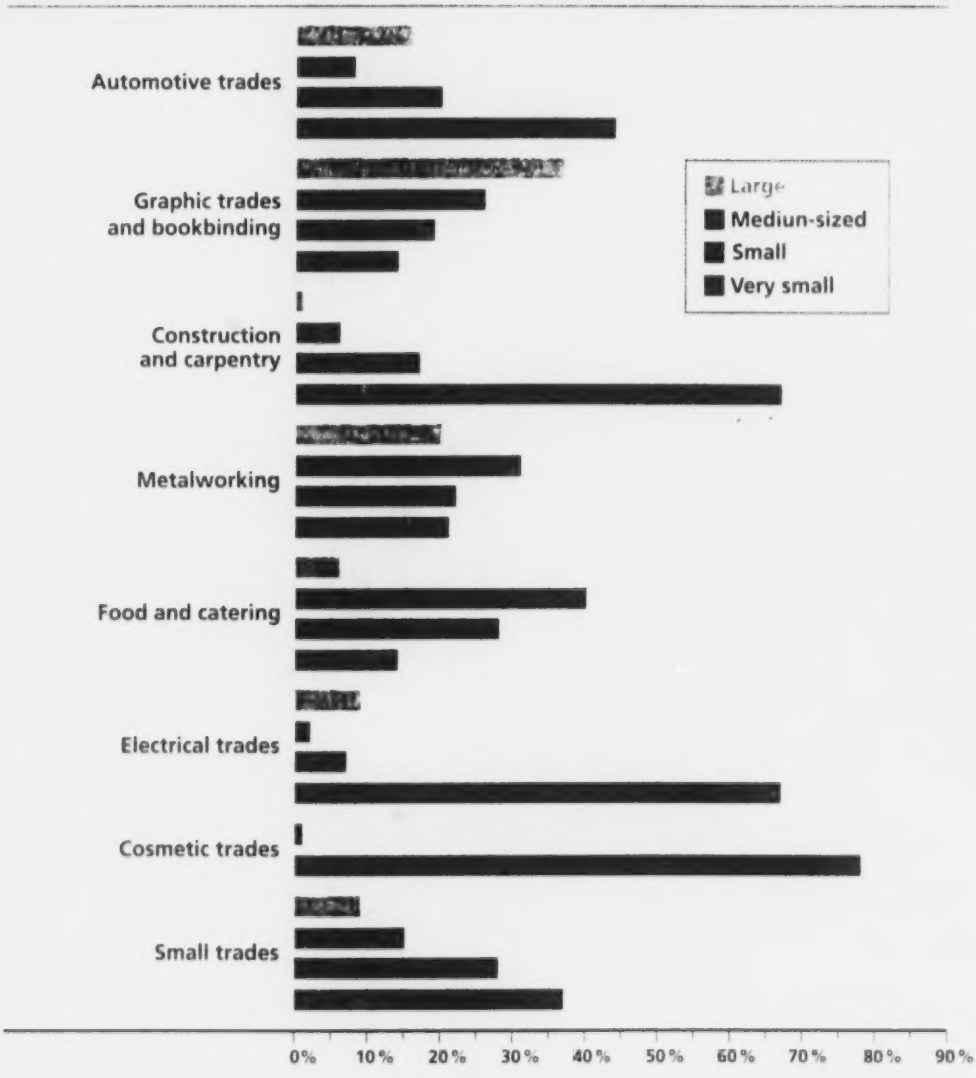
In this table landscape gardening and the clothing, fur and leather trades are grouped with small trades because of the low numbers of apprentices under contract. The number of employees in very small enterprises is 1 to 9, in small enterprises 10 to 49, in medium-sized enterprises 50 to 249 and in large enterprises 250 or more.

SOURCE: *THE APPRENTICES' UNION OF ICELAND AND STATISTICS ICELAND, REGISTER OF COMPANIES.*

3.2.10.4. Field of study

An examination of the distribution of apprentices by occupation reveals that most of them are under contract in construction and carpentry. There are remarkably few apprentices under contract in the electrical trades. The reason for this is that study in electronics takes place for the most part in schools and most of the electrical trade apprentices chose the vocational school study option.

Figure 13. **Proportion of apprentices in each trade by the size of enterprises, 1996**



SOURCE: *THE APPRENTICES' UNION OF ICELAND AND STATISTICS ICELAND, REGISTER OF COMPANIES.*

As Figure 13 above indicates, by far the greatest proportion of apprentices is in small enterprises. Apprentices in the metal and food industry, however, are more likely to receive their on-the-job training in medium-sized enterprises. In the graphic trades and bookbinding some 35 % of apprentices are under contract with large enterprises and very few work in very small enterprises.

3.3. Continuing vocational education and training

3.3.1. Growing emphasis

The increasing level of general education and rapid changes in industry and society have resulted in growing activity in the field of continuing vocational training (CVT). Consciousness is definitely rising as regards its importance for individuals, enterprises and society as a whole, for instance, due to rapid technological advances and in the struggle to combat unemployment. This view has been expressed in the policy platform of governments and by the federations representing both sides of industry. All parties emphasise the need to formulate an overall policy in the area of CVT.

Continuing vocational training is defined in this text as study or training which people in the labour market undertake in order to improve their skills and increase their knowledge relevant to the job at which they work or are planning to work.

3.3.2. The legal context

3.3.2.1. The 'system'

If a system is a set of interdependent elements forming an organised whole, then CVT activity in Iceland does not form a system. CVT activity is built up of separate, independent units, each of which is usually highly target-group oriented. The units tend to have a poorly defined function or they may claim to be fulfilling a whole range of functions by a single course or set of courses (e.g. promotion function, adaptation function, wage rise function). This results in a lack of overview of CVT activity for individuals, groups and enterprises and non-transparency of the whole field as well as individual units, at least for those other than the specific target groups. The strong target-group orientation results in both deliberate as well as inadvertent limitations to access by people outside the target group of individual courses.

3.3.2.2. Future policy

In April 1997 the Minister for Education, Science and Culture appointed a committee, comprising representatives from various ministries and the social partners, to develop a framework for the future as regards CVT. The committee's mandate was not least to define the role of government on the one hand and the social partners on the other regarding CVT. The committee issued its report in May 1998.

One of the committee's proposals was that the main responsibility should be in the hands of the Ministry of Education, Science and Culture, although the social partners, institutions, private enterprises and the individuals themselves also have responsibilities. It is proposed that, over the next five years, a special plan be initiated in order to increase the supply of and demand for CVT, as well as securing the quality of what is offered. It is also emphasised, that the social partners join forces in forming policy regarding CVT. The structural foundations for this cooperation have in fact been laid, because in November 1998 the social partners formed an association, Education Iceland (*Mennt*), with the participation of schools at upper secondary and university level, aiming at coordination and cooperation in the field of policy making in matters related to vocational education (see Chapter 6).

3.3.3. Types of vocational training courses

Continuing vocational education and training is carried out in many different areas of Icelandic society, conducted variously by public authorities, private parties or voluntary organisations. CVT is a target-group oriented activity. Consequently the least tangled way of classifying the overall activity is to base the classification on these broad and diffuse target groups. This approach does not, on the other hand, shed any light on the objectives of CVT, on the demand for the training in question or how this demand came to be.

Continuing vocational education and training can be broadly divided into four principal categories.

(1) Educational organisations in the general market and connected to universities. Such enterprises offer studies concerned especially with the operation and management of businesses.
(2) Education and training intended to increase the occupationally specific skills of workers. This is the objective of the operations of educational councils in certified trades, in-service education activities within vocational schools (including itinerant schools and upper secondary schools), vocational courses held by industrial educational and research institutes, and master craftsman's study in the certified trades.
(3) Increasing vocational qualifications within large companies. Such operations are organised by training directors who are permanent employees of the enterprises. Their role is generally to assess the in-house requirements of the enterprises for qualified personnel and fulfil these needs by arranging courses inside and outside the company. The courses are only open to permanent or prospective workers of the enterprises.
(4) Large public institutions look after the preparatory and follow-up training of their workers with activities conducted by specific departments or as special schools. The study is only open to employees of the institutions or those persons intending to commence employment at the institution.

3.3.3.1. The private market and the Institute of Continuing Education at the University of Iceland

Many types of courses are offered on the private market concerned especially with computer training of various sorts as well as the operation and management of enterprises. These are generally short courses (5 to 20 hours) and the cost of attending is generally ISK 1 500 to 2 000 per hour. In some instances trade unions have supported the participation of their members in such courses.

Courses offered by computer and management schools are open to all and in most cases have no entrance requirements. These enterprises do not usually report attendance in their courses and no overall figures are thus available as to the number of students or the cost.

The Institute of Continuing Education (*Endurmenntunarstofnun*) is a cooperative effort of the University of Iceland, the Icelandic College of Engineering and Technology, the Association of Icelandic Architects, the Confederation of University Graduates, the Icelandic Society of Technical Engineers, the Association of Chartered Engineers in Iceland and the Icelandic Teachers' Union.

More than 10 000 persons attended courses offered by the Institute of Continuing Education in 1997. More than 90 % attended occupationally related courses, especially in the operation and management of enterprises. Short courses offered by the Institute are open to all and have no requirements as to prior education. There are entrance requirements for longer courses, which comprise about one third of all courses and were attended by about 20 % of the students.

3.3.3.2. In-service training organised by trade unions and other organisations in industry

Occupationally specific courses are conducted in many locations, but no comprehensive summary of the attendance at such courses is available. In-service training activities are organised by the following occupational groups within the institutions indicated, both on a regular basis and depending upon attendance and demand.

Automotive trades	Educational Centre of the Automotive Trades
Printing and publishing	Graphic Arts Institute
Metal industry	Educational Centre for the Metal Industry
Construction	Educational Centre for the Construction Industry
Electrical industry	School for the Electrical Industry
Fish processing	Educational Committee for Fish Processing, Icelandic Fisheries Laboratories
Hotels, food and catering trades	Educational Centre for the Hotel and Food and Catering Trades
Agriculture/horticulture	Agricultural colleges, the State Horticultural School
Manufacturing industry	Vocational Training Committee for Workers in Manufacturing, Icelandic Technological Institute.
Commerce	Cooperation Committee of Shop and Office Workers
Caring and sanitation	Courses for workers of State and local authorities
Various vocational training courses	Workers' Educational Authority
Management courses	The Reykjavik Computer School etc.

These activities are spread around the country in a great number of small units, and no attempt has been made to collect in one place data concerning their scope or success. Some of the information available on continuing vocational education for skilled and unskilled workers has been collected in Table 16.

Table 16. **Available information on in-service training courses for skilled workers, 1995**

Occupation and target group	Turnover 1995 (ISK 1 000)	Number of students	Number of courses	Active student hours (40 minutes each) (1)	Person-years in occupational group (1994)
Icelandic Technological Institute (Educational Section)	40 000	1 220	76	50 686	*
Icelandic Fisheries Laboratories (6)	7 200	420	30	4 200	*
Federation of Icelandic Industries	504	73	11	2 993	*
Publishing industry, Institute of Printing Technology	20 000	750	*	17 000	2 200
Metal industries and maintenance (Educational Council)	21 000	260	30	12 027	2 200
Construction (Educational Council)	13 513	490	32	10 575	10 100
Electrical industry (School for the Electrical Industry)	59 000	2 604	292	(6 640) (2)	2 000
Agriculture (*Hvanneyri and Hólar*)	21 000	1 249	102	*	5 900
Fisheries — unskilled (Educational Committee)	9 400	552	*	18 000	6 900
Manufacturing — unskilled (In-service Training Committee)	7 500	269	19	11 000	13 900
Commerce — unskilled workers (Cooperation Committee)	5 780 (3)	350 (3)	*	*	17 000
Reykjavik Municipal Evening (3)	7 077 (6)	906	32	72 108	*
of these, Members of *Sókn* (4)	4 291	654	22	55 494	2 000
Day minders	131	17	1	1 071	*
Reykjavik Municipal Workers' Union	2 655	235	9	15 543	*
Vocational training offered by WEA		385	20	13 524	*
Total number of students		**9 780**			

* Not available

(1) Student hours, i.e. number of hours of instruction multiplied by the number of students.
(2) This figure is the total number of hours of instruction regardless of the number of students.
(3) Figures for 1994.
(4) Wage-related courses for *Sókn* offered by the Reykjavik Municipal Evening School.
(5) In addition, *Sókn* (trade union) offers its own courses attended by some 100 to 200 persons per year.
(6) Figures for 1996.
(7) Accommodation costs not included.

SOURCE GYLFI EINARSSON, 1998.

It is clear that the overall figure for total number of students represents a minimum. These figures cannot be expected to cover all the studies on offer in these areas.

In general, courses arranged by the abovementioned parties are not open to all with the exception of those held by the Icelandic Technological Institute (*Iðntæknistofnun*), the Icelandic Fisheries Laboratories (*Rannsóknastofnun Fiskiðnaðarins*), the School for the Electrical Industry (*Rafiðnaðarskólinn*) and the Graphic Arts Institute (*Prenttæknistofnun*), which follow the general principle of having courses open to all. Sometimes participation is limited to members of the union or others connected to it in some manner. This is the case, for example, at the Educational Council for the Metal Industry. There may also be requirements that a worker has at least several months' work experience with the same employer before being granted access to a course. This applies, for example, to unskilled fish processing workers, despite the fact that the courses are operated completely through public funding. The most common requirement, however, is for vocational training acquired in school.

Educational councils and the training they offer are jointly operated by employers and workers and financed through a specific percentage of salaries paid. These courses are subsidised for members of the unions and professional associations concerned, while non-members pay the full price, which in some cases may be up to five times more. A major portion of the funding to a Vocational Training Fund is used to support the production of instructional materials and the organisation of courses by the above-mentioned parties.

3.3.3.3. Industrial research institutions

There are eight industrial research institutions, under the jurisdiction of three ministries, each operating in accordance with specific legislation. These institutions and their roles are as follows.

(1) Icelandic Technological Institute (*Iðntæknistofnun*). The Institute works on technological development and increasing productivity in Icelandic industry. It is responsible to the Ministry of Industry.

(2) The Building Research Institute of Iceland (*Rannsóknastofnun byggingariðnaðarins*). Its role is to encourage cost-efficient and durable construction in Iceland. To this end practical research is carried out in most construction areas and expert advice offered. It is responsible to the Ministry of Industry.

(3) National Energy Authority (*Orkustofnun*). The Authority advises the Cabinet on energy questions, and carries out exploratory research of the country's energy resources. In addition the Authority provides local authorities with information and instructions on energy questions for a fee. Thirdly, the Authority carries out applied geological surveys, including research on ground water, the continental shelf, etc. for the State and local authorities for a fee. Fourthly, the National Energy Authority operates the UN Geothermal Training Programme (exclusively for foreign students) on the basis of a special agreement. It is responsible to the Ministry of Industry.

(4) The Marine Research Institute (*Hafrannsóknastofnun*). The Institute carries out research and provides advice on marine resources in Icelandic waters and their rational exploitation, on the ocean biosphere and oceanographic conditions and the structure and characteristics of the continental shelf. It is responsible to the Ministry of Fisheries.

(5) Icelandic Fisheries Laboratories (*Rannsóknastofnun fiskiðnaðarins*). Its role is to encourage progress in the fishing industry through research on marine raw materials and products. It is responsible to the Ministry of Fisheries.

(6) The Agricultural Research Institute of Iceland (*Rannsóknastofnun landbúnaðarins*). The Institute carries out or supervises all research and experiments in agriculture financed from the national budget. It is responsible to the Ministry of Agriculture.

(7) Institute of Freshwater Fisheries (*Veiðimálastofnun*). Its role is to carry out the day-to-day administrative affairs of freshwater fisheries, provide instruction and information on those fisheries, collect reports on fishing and aquaculture, monitor the construction of aquaculture and fish-farming structures, carry out research on inland waters and freshwater fish and experiment in aquaculture and fish farming. It is responsible to the Ministry of Agriculture.

(8) Research Station of the Icelandic Forestry Service (*Skógræktarstöðin*). Its role is to carry out any and all types of research of importance for the cultivation of trees and forests; furthermore, to study domestic tree species and collect species and strains of trees from abroad and study their growth and how well they thrive under varying conditions in Iceland. In addition it develops methods of cultivation which will increase security and productivity in forestry, carry out selective species improvement and offer services and instruction of significance for forestry. The institute is responsible to the Ministry of Agriculture.

The total operating expenditures for these institutions in the 1995 budget was ISK 1 915 million (EUR 24.5 million), and together they account for 606 person-years. The total operating expenditure for information and instructional activity is ISK 75.7 million (EUR 0.96 million), or about 4 % of their total operating expenditures. The Icelandic Technological Institute is in a special class in this respect, as some 16 % of the operating expenditure of the Institute is the direct result of continuous education.

3.3.3.4. Educational activities within large companies

Training directors have a professional organisation and its membership list indicates that 16 of the 55 largest enterprises in Iceland have a full-time employee who functions as such. These enterprises and institutions are, in fact, of varying size and type, as Table 17 indicates.

Table 17. **Large enterprises and institutions in Iceland which have a full-time training director**

Enterprise	Person-years 1994	Turnover 1994 (ISK million)	Turnover per person-year (ISK million)*
Post and telecommunications	2 230	10 131	4.54
Icelandair	1 273	15 470	12.15
Reykjavík Municipal Hospital	1 261	3 546	2.81
National Bank of Iceland	1 126	11 037	9.8
Reykjavík Pre-school Services	1 074	1 989	1.85
The Icelandic Steamship Co. Eimskip	788	9 558	12.13
Íslandsbanki	732	6 863	9.38
Agricultural Bank of Iceland	606	5 188	8.56
Icelandic Aluminium	519	11 141	21.47
Olíufélagið (Esso)	350	8 604	24.58
National Power Company	329	6 917	21.02
Hrafnista Senior Citizens' Care Home	262	520	1.98
VÍS Insurance	190	5 257	27.67
Total person-years	**10 740**		
Total turnover		**96 221**	**8.96**

* ISK 1 000 000 = ECU 12 660

SOURCE: *MEMBERSHIP LIST OF THE TRAINING DIRECTORS' ORGANISATION AND FRJÁLS VERSLUN NO 7, 1995*

In addition to the enterprises and institutions listed above, the City of Reykjavík, the Iceland Defence Force and the Municipality of Akureyri employ full-time training directors (5 473, 922 and 752 person-years respectively). Many enterprises and institutions have a part-time training director.

The employers mentioned here generally do not indicate the scope of training within their companies. In some instances this is very extensive, for instance in the case of Eimskip (the Icelandic Steamship Company), which dedicates about 2 % of its total wage expenditure to education within the company. Clearly, the courses offered by these enterprises are only intended for their workers. The purpose is primarily to strengthen the enterprise itself. About one third of enterprises and institutions with over 250 person-years have training directors, and as far as can be determined these positions have only been created in the past 10 years.

3.3.3.5. Educational activities within public institutions

A considerable number of large public institutions organise basic training and continuous vocational education for their workers and operate special educational sections for this purpose. These institutions include the following:

Post and telecommunications	Postal and Telecommunication School
Ministry of Justice	The State Police College
Public banks, Íslandsbanki and the Savings Banks	Banking School
Iceland Fire Authority	Iceland Fire Authority School
Directorate of Customs	State Customs Officers' School
Bureau of Administrative Reform	Public administration training
State Prison Administration	Prison Warders' School

These schools are only open to the employees or prospective employees of the institution concerned. An attempt is made to provide an indication of some of the main figures on the scope of these activities in Table 18, below.

Table 18. Schools operated by public institutions

Institution	Number of employees	Estimated number of students 1995 (new students and in-service trainees)	Estimated cost of school operations, (ISK 1 000)*
Postal and Telecommunication School (1)	2 418	477	20 000
The State Police College	604	286	30 000
Banking School	3 300	800	10 000
Iceland Fire Authority School	1 700	160	8 000
State Customs Officers' School (2)	200	70	
Public administration training (Bureau of Administrative Reform) (3)	(22 000)	550	10 000
Seamen's Live-Saving School (4)	(7 000)	1 400	40 000
Prison Warders' School (5)	100		

* ISK 1 000 000 = ECU 12 660

(1) In addition, individual departments of the institution carry out in-service training, especially related to new technology. Total expenditure on in-service training for post and telecommunications is estimated at around ISK 60 million.

(2) The Customs Officers' School operates in accordance with the new Customs Act, No 69/1996.which will mean a substantial increase in its scope.

(3) Strictly speaking, all public servants have the right to attend training courses in public administration.

(4) Most of the students of the school are fishermen and sailors, but any persons interested in life-saving may attend.

(5) Work is underway on a regulation concerning the training of prison warders which will increase this number considerably.

SOURCE: GYLFI EINARSSON 1998.

3.3.3.6. Surveys of the need for and quality of continuing vocational education

The Confederation of Icelandic Employers (VSÍ) and Intercom (*Sammennt* — the Icelandic Network for the Education and Research Community) carried out a study of the extent of continuing vocational education in Icelandic businesses with over 10 employees during the year 1995. The survey covered all companies within VSÍ having more than 10 employees as well as the largest companies within the Icelandic Chamber of Commerce (*Verslunarráð*), a total of 527 enterprises. These are exclusively private sector companies. They comprise 38 % of all enterprises in Iceland with over 10 employees, including public enterprises. Information as to whether job training or continuing vocational education had been offered was received from 374 companies, or 71 % of the sample.

The total number of person-years was around 20 000 or just over 16 % of the national total. Most of the enterprises in the sample were in the fisheries sector (27.6 %), manufacturing (29.3 %) and commerce (15.6 %).

The total number of person-years in all the 1 400 Icelandic enterprises and institutions with over 10 employees is about 74 000. Their employees number around 83 000.

The main conclusions of the survey on the scope of continuing education are as follows.

- Employees of 67 % of enterprises in the sample attended some sort of job training in 1995. A comparable survey carried out in 1990 indicated that at that time 58 % of employees attended some sort of course.
- Participation is greater as the size of the enterprise grows. About half of the enterprises with 10 to 15 employees sent workers on courses, while around 90 % of the enterprises with over 100 employees did so. Most often it is specialists (72 %) and middle management (52 %) that attend courses, while general workers are in the next lowest category (24 %). This is generally the case regardless of the size of the enterprise. At the same time, it is most frequently employees with a university degree (79 %) who seek continuing specialised education. There was no significant difference between the sexes with respect to attending continuing education.
- Some 33 % of the enterprises had a special employee responsible for continuous vocational education, and this was closely related to the size of the enterprise (55 % of enterprises with over 100 employees and only 19 % of those with 10 to 15 employees). The average time spent on this work is 35.1 hours per month, or less than one quarter of a full position.
- The enterprises paid the full cost of training in 90 % of cases and professional training funds participated in the cost in 15 % of cases. Direct expenditure on training in enterprises in the country with over 10 employees would appear, from the survey, to be around ISK 800 million and this benefited about 20 000 employees. This is almost 16 % of the workforce. By comparison, public expenditure on university education and research amounted to ISK 2.9 billion (ECU 36.7 million), on upper secondary education ISK 4.7 billion (ECU 59.5 million) and on compulsory education ISK 5.5 billion (ECU 69.6 million) in 1995.

3.3.3.7. Collective agreements on cooperation in continuing vocational education in practice

Five associations within the Icelandic Federation of Labour have investigated continuing vocational education among their member unions.

According to this survey the union *Sókn*, the Union of Assistants in Hospitals, etc., has built up regular activities in this area. The course system is comprised of individual units and workers completing all of them receive a pay increase. The system is jointly organised by workers and employers. Employers, who are primarily State and municipal institutions, as well as independently operated health care institutions, pay for the courses. Some 23 % of union members attended a course in 1995.

The other four associations have not made training a permanent aspect of their activities in cooperation with employers. Two of them, however, the Icelandic Shop and Office Workers Federation (*Landssamband verslunarmanna*) and the Federation of Icelandic Factory Workers (*Landssamband i ðnverkafólks*), have formed jointly with employers educational councils or cooperation committees for in-service and continuing education. The role of the educational councils is to organise and handle continuing education activities.

The Factory Workers' Educational Council has held courses for unskilled workers since 1987. Most workers attend a 40-hour basic training course, but there is no follow-up. Follow-up courses are, however, in preparation. Some 6 % of union members attended a course in 1995.

The Educational Council of Shop and Office Workers was established in 1982 and re-established in 1992. It organises short courses comprised of 20-hour modules for shop and office workers in cooperation with upper secondary schools. Basic courses are already offered and follow-up courses are in preparation. Some 2 % of union members attended a course in 1995.

About 26 000 people have access to these courses in accordance with the collective bargaining agreements of the two Federations and Sókn. It varies as to whether courses are held during working hours and whether employees are paid full wages while attending. The participation of individual employees depends upon the employer and this has reportedly created problems in small enterprises, especially outside the region surrounding the capital.

Unions within the Icelandic General and Transport Workers' Federation (*Verkamannasamband Íslands*) do not have a general agreement in this respect, but each union must handle its own affairs. Most of them do have provisions for training in their agreements but their implementation varies greatly and there is no overall summary of these activities available from the Federation. The Federation includes some 24 000 workers.

Workers in fish processing are in a special position in this respect. The Job Training Committee in Fish Processing has carried out continuing education activities since 1986. This is covered by provisions in wage agreements. Activities are paid for primarily by a special allocation in the budget of the Ministry of Fisheries. Some 11 600 workers have received instruction on courses held by the job training committee over a ten-year period. Some 9 500 people work in the sector at present.

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3.3.3.8. The Vocational Training Council and Vocational Training Fund

One of the tasks of the Vocational Training Council of the Ministry for Social Affairs is to distribute grants from the Vocational Training Fund for the purpose of holding courses and producing instructional materials for vocational training in industry, in accordance with Act No 19/1992. The fund has had ISK 40 to 50 million (ECU 500 000 to 630 000) annually at its disposal and has from its inception distributed some ISK 235 million (ECU 3 million) or 20 to 45 grants each year. The average grant is approximately ISK 1.6 million (ECU 20 250), and during its five years' of operation some 70 different parties have received grants of varying sizes. It should, however, be borne in mind that the number of parties who have received grants only partly reflects the variety of the studies which have been supported or the breadth of the group attending. Many of the applicants offer a wide variety of vocational training directed at a very broad section of the labour force.

Another principal role of the Vocational Educational Council is to advise the government on policy in vocational training in industry and on continuing vocational education.

Chapter IV
Regulatory and financial framework

4.1. Administrative and regulatory arrangements in initial vocational training

4.1.1. The Upper Secondary School Act 1996 — general provisions

The Upper Secondary School Act, No 80/1996, which is to be fully implemented by 1 August 2000, sets out a new policy in vocational training affairs in Iceland. The Act covers all State-run vocational schools at upper secondary level. Only specialised schools on the border between upper secondary and university level now operate according to special legislation.

Since the same legislation applies to the entire upper secondary level, provisions on the establishment, operation, administration and staffing apply to all schools, regardless of their programme of study. The Act includes general provisions on the role of the upper secondary school, entrance requirements, organisation of study, study facilities, curricula and evaluation. These provisions form the outline and framework for operations and indicate the direction to be followed in more detailed implementation of the content and practice of all programmes of study. Here the national curriculum guide for upper secondary schools plays a key role. It is thus the curriculum guide, and not the Act as such, which will determine what study programmes are offered, i.e. the number and nature of the study programmes, entrance requirements for individual programmes, objectives of study programmes, content and scope, study requirements and evaluations.

4.1.1.1. Admission

According to Article 15, anyone who has completed compulsory school or received an equivalent basic education shall be entitled to commence study in upper secondary school. Furthermore, a pupil who has reached the age of 18 years may, following an assessment, be granted admission to specific programmes of study in upper secondary school even though he or she does not fulfil the minimum requirements for study completed. The admission requirements to individual programmes of study are determined by the requirements of the study in question. Minimum requirements for individual subjects upon the conclusion of compulsory school and for on-the-job training, where such is required, are to prescribed in a regulation (curriculum guide).

The adoption of this Act thus provides the possibility of setting varying requirements for admission to vocational programmes of study, as well as to other programmes of study in upper secondary school, depending upon the requirements of the vocational study in question.

4.1.1.2. The national curriculum guide

According to Article 21, the national curriculum guide is to set out the principal guidelines for school operations. Here the objectives of upper secondary school and of individual programmes of study and subjects are further developed and the conclusion of study prescribed. There will also be provisions on the structure of individual programmes of study, cohesion of study and the normal length of study for each programme, the minimum number of hours of instruction and the main features of study content. The national curriculum guide will make provision for evaluation, including examinations and reports. It contains provisions concerning the evaluation of on-the-job training, the transfer of credit when pupils change schools, and the requirements for transferring from one programme of study to

another. In addition it will include general guidelines for school curriculum guides and evaluation of school activities.

4.1.1.3. The school curriculum guide

Under Article 22, all schools are required to issue a school curriculum guide explaining their study programmes, the length and content of course units and the distribution of subjects over the terms or years of study. It will also provide information on the emphases in school operations, methods of instruction, evaluation and management practices, such as quality management. The school curriculum guide also indicates how the school intends to achieve the objective of encouraging the overall development of pupils in order to prepare them as well as possible for active participation in a democratic society.

4.1.1.4. General student evaluation

General student evaluation in upper secondary school is carried out by teachers and department heads and is based on the objectives of school operations as detailed in the national curriculum guide and school curriculum guide. Final examinations in vocational programmes of study, which may confer the right to further study or employment qualifications, such as journeyman's examinations, are administered on a national basis.

4.1.1.5. Evaluation of school activities

Article 24 provides for each upper secondary school to introduce procedures for the evaluation of school activities, including instructional and management practices, and internal and external school relations; this applies as much to vocational study as to any other study. At five-year intervals an outside party shall carry out an assessment of the school's self-evaluation methods.

4.1.2. Structure of the vocational study programmes

With regard to content and structure, Article 25 of the Act states that vocational study will be divided between the school and the workplace, or will take place only in school. Emphasis is placed on having theoretical and practical study form as cohesive a whole as possible in order for pupils to better understand the connection between the theoretical and practical aspects. The content of vocational study must reflect the current needs of the occupational sector with regard to workers' vocational skills.

Practical study and on-the-job training is to be based, in accordance with Article 32, on the provisions of the national curriculum guide and rules on training in the workplace for the occupation in question. A special on-the-job training contract for workplace instruction is concluded between a school and workplace or an apprenticeship contract between the pupil and employer. The apprenticeship contract is signed at the commencement of workplace instruction and confirmed within one month. It specifies the trial period and duration of the contract. Provisions concerning wages and other working conditions during the study period shall be in accordance with currently applicable collective bargaining agreements for apprentices in the occupation concerned. A regulation, issued by the Minister for Education, Science and Culture, will contain provisions concerning contracts for on-the-job training. It will also provide for the form, confirmation and registration of apprenticeship contracts, as well as for the termination of contracts and handling of disputes concerning the implementation of the contract.

4.1.3. Role of the social partners

4.1.3.1. Cooperative committee for VET

The most extensive change introduced by the Upper Secondary School Act, No 80/1996, with regard to vocational study involves the administrative aspect, where it makes far-reaching changes and provides much more detailed definitions of the roles and responsibility of the various parties. On the one hand, it expands considerably the influence and responsibility of both sides of industry in shaping vocational study and, on the other hand, emphasis is placed on treating all occupations equally.

Articles 26 and 27 provide for the appointment of a Cooperative Committee for Vocational Education and Training, including equal numbers of representatives of employees, employers and public authorities, for a four-year term. The role of the Committee is to strengthen connections between school and industry and advise on policy for vocational study and on the setting of general rules on the organisation and implementation of vocational study in all areas. In addition it shall make proposals on prioritising tasks and experimental and pilot projects concerning vocational study and make proposals on the organisation of occupations into occupational groups.

The Cooperative Committee replaces the Industrial Training Board, the Training Council for the Fishing Industry and the Training Council for Travel Affairs, which operated in accordance with the former Acts.

4.1.3.2. Occupational Councils

Under Articles 28 and 29, the Minister for Education, Science and Culture is also to appoint Occupational Councils for individual occupations or groups of occupations for a four-year term. In addition to one representative of the Minister for Education, Science and Culture, each Occupational Council comprises an equal number of representatives of employees and employers in the area concerned. The two groups may decide for themselves how many representatives they wish to have and must themselves pay the cost of their participation in the Occupational Council. The role of the Occupational Councils is to define the needs of the occupations concerned with regard to the knowledge and skills of workers and to set out the objectives of vocational study. The Councils make proposals concerning the structure of vocational study, the curriculum in special subjects, the form and methods of evaluation, and they monitor the quality of instruction and instructional materials. They also make proposals on the division of study between the school and the workplace, and on rules concerning workplace instruction, approval of workplaces which may accept apprentices for on-the-job training or on apprenticeship contracts, and the facilities and teaching staff of schools offering vocational programmes of study. After receiving the proposals of the Occupational Council, the Minister for Education, Science and Culture publishes a curriculum guide for the special subjects in vocational training as part of the national curriculum guide, as well as rules on the implementation of vocational training in individual occupations.

The Occupational Councils replace the instructional committees for the certified trades. The principal changes from former Acts are, firstly, providing for all occupations with organised study programmes at upper secondary level to be members of a specific Occupational Council and, secondly, giving the social partners an undisputed majority in the Councils.

The Occupational Councils number 14 in all. They are: the Occupational Council for the Construction and Installation Sectors; the Occupational Council for the Vehicle and Transport Sectors; the Occupational Council for the Food and Catering Industries; the Occupational Council for Metallurgy, Heavy Industry and Other Industries; the Occupational Council for Education and Recreation; the Occupational Council for Information and Media; the Occupational Council for Security, Salvage and Law Enforcement; the Occupational Council for Health and Social Services; the Occupational Council for Design, Fine Arts and Crafts; the Occupational Council for the Use of Land and Nature; the Occupational Council for Personal Services; the Occupational Council for Electricity and Electronics; the Occupational Council for the Fisheries Industries; and the Occupational Council for Commercial and Office Work.

4.1.3.3. Advisory committees

Two new provisions also authorise the increased influence of the social partners on the operations of individual schools. They may sit on advisory committees for vocational schools and be a party to agreements on the operation of core schools, which are the developmental centre for study in a specific occupational area.

In order to encourage optimal cooperation between school and industry the school boards of upper secondary schools may, in accordance with Article 30, appoint one or more advisory committees. They comprise representatives of both sides of industry in the community in question on the basis of nominations from the Occupational Council concerned.

4.1.3.4. Core schools

Article 31 states that the Minister for Education, Science and Culture may, upon receiving the opinion of the Occupational Council and parties involved in the establishment, designate an upper secondary school, or section of an upper secondary school, as a core school for a longer or shorter period of time. A core school is, in consultation with the Occupational Council concerned, to take the initiative in developing instructional materials, the structure of study and instructional methods for vocational study as well as in assisting other schools and enterprises in improving instruction and training in the area concerned. Interested parties in industry may be a party to an agreement between the Minister for Education, Science and Culture and a scholastic institution at upper secondary level concerning core schools in a specific occupational area.

4.2. Administrative and regulatory arrangements in continuing vocational training

4.2.1. The Act on Vocational Education in Industry

The Act on Vocational Education in Industry No 19/1992 was the first law passed on CVT. According to the Act, continuing vocational training as an activity comes under the jurisdiction of the Minister for Social Affairs except for continuing training in the fish processing industry, which comes under the Minister for Fisheries (*Sjávarútvegsráðuneyti*).

The objective of the Act is to promote and encourage CVT in the labour market as well as in the economy as a whole. This objective is achieved by: (a) supporting organised CVT activity, preparation of courses and production of instructional

material; and (b) taking initiative in the field of CVT and formulating policy according to the decisions of the Vocational Education Council.

The Minister for Social Affairs appoints a Vocational Education Council on the basis of nominations by the social partners. The roles of the Council are (a) to award grants to those engaged in CVT and (b) to advise on policy formulation and actions in the area of CVT. The law obliges the Ministry to collect and disseminate information on the education and training activity that has received support from the Vocational Education Council.

4.2.2. The Upper Secondary School Act

The Upper Secondary School Act, No 80/1996 governs CVT concerning adult education as well as the training of teachers. Upper secondary schools may, with the approval of the Minister for Education, Science and Culture, offer CVT on the basis of agreements negotiated with occupational associations, trade unions, employers or other interested parties. All costs resulting from such courses are kept separate from other school operations and are covered in full by those parties arranging the courses with the school or by participants' fees. The Minister may also authorise upper secondary schools to establish centres for CVT in cooperation with local authorities, occupational associations, trade unions or other interested parties, in which case the partners draw up a contract covering their activities. More detailed provisions on these operations are prescribed in a regulation.

4.2.3. The Act on Unemployment Benefits

By the Act on Unemployment Benefits No 12/1997 and the Act on Labour Market Measures 13/1997 the country is a single employment area. An individual who is looking for a new job has the opportunity — or is obliged for that matter — to accept a job anywhere in the country.

An employment institute, Directorate of Labour (*Vinnumálastofnun*), was established as well as several district employment agencies. The tasks of the Directorate are to:

- coordinate the activities of the agencies;
- provide their staff with assistance and vocational training;
- collect and process information on the labour market and employment situation;
- evaluate and disseminate this information to the steering board of the institute;
- monitor trends and evaluate forecasts on foreign labour markets;
- provide information on Icelandic labour market issues to foreign institutions in accordance with international agreements.

One of the main tasks of the district agencies is to inform unemployed people of job vacancies, as well as education and training measures and opportunities suitable for the job-seeker.

4.2.4. The Act on Agricultural Instruction

The Act on Agricultural Instruction, No 55/1978, includes provisions on the in-service education of persons working in agriculture. Furthermore, the Acts on various public institutions include provisions on the education and in-service training of

workers such as customs agents, prison warders, law enforcement officers and bank employees. The Ministry of Health Care, Ministry of Industry and Ministry of Commerce are involved to a varying extent in CVT in connection with their areas of responsibility.

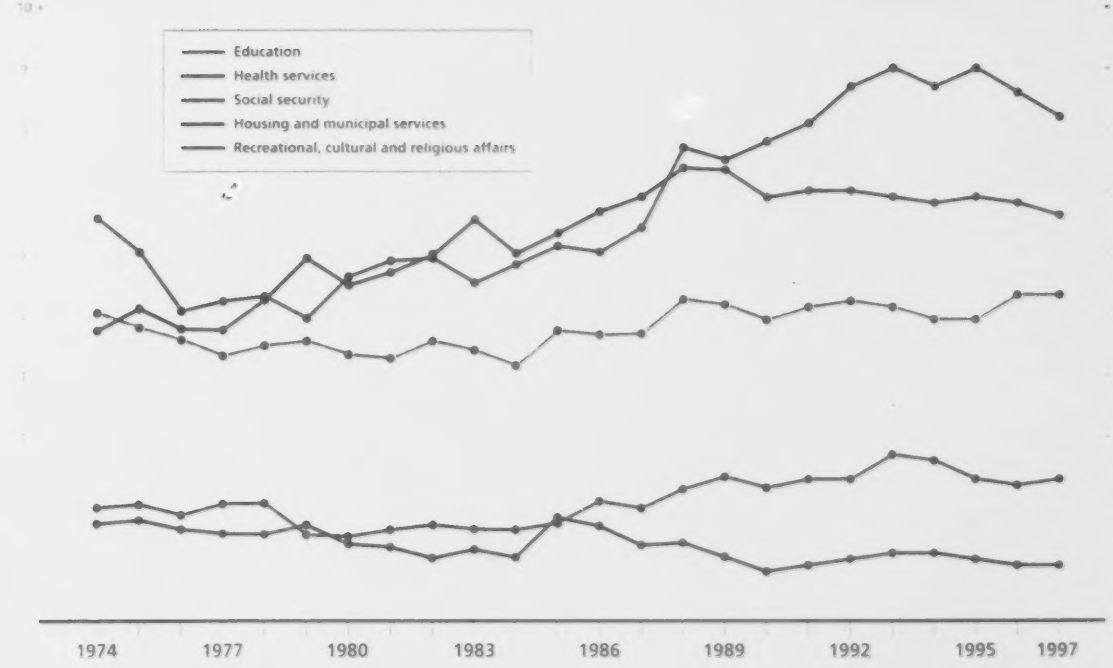
4.3. Finance

4.3.1. Government expenditure

General government expenditure on social affairs and related areas was between 18.0 and 24.1 % of GDP in the period 1980–97 and the educational budget was 4.3 to 5.3 % of GDP in the period 1974–97 (Figure 14).

The ratio between general (i.e. central plus local government) and central government expenditure has been fairly constant throughout the period as the share of central government has been around 80 %. This changed after 1995, as local government became responsible for the operation of the compulsory school from that year on.

Figure 14. **Public sector expenditure on social affairs and related areas as percent of GDP 1974–97**



SOURCE NATIONAL ECONOMIC INSTITUTE.

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4.3.2. Government investment in initial vocational training

Table 19 gives an assessment of central and local government investment in IVT in 1998 compared to the total expenditure on upper secondary education.

Table 19. **Estimated total investment by central and local government in IVT in 1998**

Source of finance	1998 real costs million ISK*
Operating costs of central government for upper secondary school in total	5 831.1
Of which estimated operating costs of IVT (1)	*1 887.0*
Initial and maintenance costs of central government for upper secondary schools in total	555.0
Of which estimated initial and maintenance costs of central government for IVT (2)	*258.3*
Initial costs of local authorities for upper secondary education in total	187.0
Of which initial costs of local authorities for IVT (2)	*103.3*
Total costs of upper secondary school	**6 573.1**
Of which total estimated costs of IVT	*2 248.6*

* ISK 1 000 000 = EUR 12 660

(1) Estimated operating costs of initial vocational education and training in day schools. It was not possible to obtain a similar estimate of the operating costs of IVT in the senior departments of upper secondary schools. Expenditure for vocational study is not kept separate from that for other studies in the accounts of upper secondary schools with mixed study programmes. Figures on operating expenditure for IVT are calculated on the basis of the total allocations to individual schools and the proportion of pupils in vocational study attending the school in question.
(2) The state pays all the maintainance costs and 60 % of the initial costs. The municipalities account for 40 % of the initial costs, i.e. the total initial and maintenance costs in upper secondary schools and the proportion of IVT pupils at that school-level (29 %). The amount for the initial costs for IVT is probably underestimated because the localities and equipment used in vocational education and training tend to be more expensive than for general academic education.

SOURCE: MINISTRY OF EDUCATION.

A general model, decided upon by the parliament, has been developed to determine the size of the operating budget for individual schools, as a share of the total annual budget for upper secondary schools in general. The model is based on the number of pupils, the length of their studies (a full-time pupil is supposed to complete 17.5 credits per term on average), the composition of the group of pupils, nature of study programmes and units offered and the utilisation of resources.

If looked at in comparison with neighbouring countries, public expenditure on education as a percentage of GDP is lower in Iceland than the other Scandinavian countries, but higher than in some other European countries, such as the United Kingdom and the Netherlands (see Table 20).

Table 20. **Public expenditure on education as percent of GDP, 1993**

Austria	4.9
Belgium	5.6
Denmark	6.7
Finland	7.3
France	5.6
Germany	4.5
Greece	3.4
Iceland	5.1
Ireland	5.2
Italy	5.0
Netherlands	4.6
Norway	7.6
Spain	4.5
Sweden	6.7
United Kingdom	4.7
United States	5.1

SOURCE OECD.

4.3.3. Investment by enterprises in IVT

The above figures all refer to public allocations. Figures on investment by private enterprises in IVT are not available. The vocational study to which enterprises contribute most, primarily in the form of wages, is apprenticeship under contract in the certified trades. Apprentices' wages vary considerably. On the whole their wages depend upon whether they are under apprentice contracts or carrying out on-the-job training. An apprentice who commences his or her study under an apprenticehip contract is paid by the enterprise for the entire length of the study or four years, in addition to which the employer pays all of the expenditure on books, materials and tools, as well as school fees. The wages paid to apprentices during on-the-job training are relatively higher but are, however, only paid while the apprentice is actively working in industry. The two systems of remuneration are intended to add up to similar results for the pupils over the study period as a whole.

No estimates have been made as to how apprentice wages should be divided between investment in education and investment in personnel to the advantage of the enterprise.

Master craftsmen or industrial enterprises have hitherto paid the examination fee (ISK 5 000), as well as material and travel costs for final examinations of journeymen under their direction, in accordance with provisions of regulations. A newly adopted regulation provides for such costs to be borne by the examinee, except where other arrangements are traditional or as otherwise agreed.

4.3.4. Financial incentives for investment in IVT

There is no direct financial encouragement for enterprises to invest in IVT, either through Icelandic fiscal legislation or through other means. Enterprises do not receive any payment from public or other authorities for training apprentices. Associations of industrial employers are discussing the establishment of a fund to which all enterprises would contribute in accordance with specific rules and which would make grants to enterprises accepting apprentices for training.

4.3.5. Estimated total investment by enterprises in CVT and sources of investment

Information on the estimated total investment and origin of financing is not readily available. A survey conducted in 1996 among firms with more than 10 employees reveals that direct expenditure on CVT by enterprises amounted to some ISK 800 million (ECU 10.2 million) in 1995.

According to the national budget, for the past three years the direct contribution of the State to various forms of CVT amounts to ISK 250 to 300 million (ECU 3.0 to 3.5 million) annually, including contributions to vocational training funds and courses for the unemployed. On the basis of the above data, the total annual investment in CVT can be estimated to be not less than ISK 1 billion annually (ECU 125 million). This amount is, however, likely to be much higher. Individual budget items are not always broken down into separate projects. As a result some portion of the sums reported under collective items in ministerial accounts or the budgets of individual public institutions may be used in support of various types of CVT, although the greater portion of the money is intended and utilised for operating costs or other projects.

As an example of other uncertain factors, one could mention that nothing is known of the size of the financial contributions from local authorities to adult education, CVT centres or special action projects which goes in fact to CVT. There has been no overall assessment of the contribution of various unions or occupational organisations to CVT, of the investment of the industrial education centres in such activities, of expenditure resulting from provisions in the collective bargaining agreements of individual groups of workers, nor of the expenditure by individuals to take part in CVT.

4.3.6. Financial incentives and sources of funding for CVT

Sources of funding for CVT can be classified as follows:

- direct contribution by the State to CVT and vocational training funds;
- indirect contribution by the State to CVT;

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- contributions from local authorities;
- contributions from trade unions or other organisations;
- contributions from industrial educational centres;
- costs of enterprises;
- costs of individuals.

There is no direct financial encouragement for enterprises to invest in CVT, either through Icelandic fiscal legislation or through other means. Businesses can generally deduct expenditure for the training of their staff as operating expenses and thus reduce their tax.

There is no system of tax breaks for individuals. The main financial incentive for individuals to participate in CVT is to be found among unskilled workers, where unions have organised wage-linked courses and negotiated agreements on wage increases in connection with them.

Chapter V
Qualitative aspects

5.1. Certification of vocational training programmes

5.1.1. Certificates in certified trades

Journeyman's examination *(sveinspróf)*. An individual who has finished a journeyman's examination in a certified trade is presented with a certificate, which gives him or her the right to use the name of the trade specified and perform work defined as belonging to it. Only those holding a journeyman's or a master craftsman's certificate are allowed to conduct this work, according to industrial law. A journeyman's certificate in a specific trade is approved everywhere in Iceland. A journeyman's certificate gives access to the master craftsman's study programme in upper secondary schools, after one year of practice as a journeyman under the supervision of a master craftsman, and entitles the holder to enter the Icelandic College of Engineering and Technology.

The journeyman's certificate committee of the trade concerned, on behalf of the social partners, sets the standard for the qualification requirements, arranges the testing, which is both theoretical and practical (a special probation project in some trades), conducts the evaluation process of individual trainees and forwards the outcome to the Ministry of Education, Science and Culture which issues journeyman's certificates.

A master craftsman's certificate *(meistarapróf)*. On the basis of a master craftsman's examination one can obtain a certificate giving the holder the right to take pupils for study and training, as well as to run a business in the specified trade. A master craftsman's certificate is recognised all over the country. An exception to this is the work permit of building contractors, which is issued by building authorities in a given municipality and is valid only within in it. The master craftsman's examination consists of a final evaluation in each module or course of the master craftsman's programme of study, arranged by upper secondary schools and evaluated by the teachers. The qualification standards are set by the Ministry of Education, Science and Culture by defined performance goals in the curriculum guides which have been developed in cooperation with representatives of the social partners. The chief of police or sheriff in the municipality issues master craftsmen's certificates.

The rights of craftsmen either with a journeyman's or master craftsman's certificate in the European labour market, are determined by Council decisions of 7 July 1964, 15 October 1968 and 19 July 1982.

5.1.2. Certificates of certified health-care occupations

The occupations and rights of many occupational groups in health care are regulated on the basis of Law No 24/1985. According to Articles 1 and 2, the Minister for Health decides which occupations the law covers, after being advised by the given occupational groups and having the opinion of the Surgeon General. Apart from doctors, nurses and health-care technicians (such as pathologists and X-ray technicians), who have a university degree, many other occupational groups have acquired validation on the basis of vocational training and certification in upper secondary schools. These are nurses, dentists' assistants, medical secretaries, pharmaceutical technicians, and specialists in foot hygiene (who still have to get their education abroad). Furthermore, there are institutional dieticians, who are

qualified for running food-service sections of health-care institutions and food technicians to work in these sections, among other things preparing specialised patients' diets. Masseurs have applied for regulation of their trade, but their application has not been accepted as yet.

The qualification standards are set by the Ministry of Health and Social Security in regulations which curriculum guides and examinations are based on. The tests are arranged by upper secondary schools and evaluated by the teachers.

Working licences of occupational groups in health care are valid everywhere in Iceland, and there is an agreement between the Scandinavian countries on mutual acceptance of nurse and dental assistants. As regards the rights of these groups within the European Economic Area, this is governed by Council Directive 92/51/EEC of 18 June 1992.

It has been somewhat difficult within some occupations to comply with the articles of the law stating that it is illegal to employ anyone in a given occupation other than those certified by the Ministery of Health. This is partly due to the fact that the occupations are not clearly enough defined, and the fields of some of them, e.g. nurses and practical nurse overlap.

5.1.3. Certificates of officers of transportation vehicles on land, in the air or on the sea

Navigational certificates *(skipstjórnarréttindi)* and marine engineering certificates *(vélstjórnarréttindi)*. Laws No 112/1984, 113/1984, 92/1991, 60/1995 and 62/1995 define the occupational rights of navigation officers and marine engineers. These are further elaborated in Regulation 118/1996 on the occupational certificates of navigation officers and marine engineers.

On the basis of these laws and the regulation, local sheriffs issue occupational certificates valid for five years to Icelandic citizens and to the citizens of other countries within the European Economic Area. The application shall be accompanied by a statement of medical examination, examination records and certificates of job-training periods. The certificates and ensuing rights are divided in many categories in terms of the sizes of vessels and their engines. Navigational and marine engineering studies are divided into four degrees and it is clearly defined in the aforementioned laws and regulation what kind of certificate can be issued for each degree, provided the other conditions are fulfilled.

In 1995 Iceland signed the agreement of the International Maritime Organisation on standard training certification and watchkeeping (STCW) for seafarers. The Icelandic Maritime Administration issues international work permits on the basis of Icelandic certificates in accordance with instructions given in the STCW international agreement. The administration also signs certificates issued in countries that are members of the STCW agreement. The Ministry of Transport is responsible for issuing certificates for citizens of countries outside the EEA and countries not members of the STCW international agreement. This is further defined in a regulation.

Certificates for aircraft officer (*flugmaður*), aircraft mechanic (*flugvirki*) and air traffic controller (*flugumferðarstjóri*). A regulation on certificates of 1 May 1996

issued by the Icelandic Civil Aviation Administration and the constitution of the International Civil Aviation Office define the rights and duties of aircraft officers. There are four categories of professional pilots' licences for helicopters and four for other aircraft, a licence for aircraft mechanics, two categories of licences for aircraft technicians and an air traffic controllers' licence. The regulation clearly defines the issuing of licences and the qualification requirements. Each licence is valid for five years, and after that a re-evaluation of the applicant's proficiency determines whether the licence is reissued.

5.1.4. Vocational qualifications outside certified trades

In all vocational education and training outside the certified or regulated trades mentioned above, the qualification demands are described in curriculum guides acknowledged by the Ministry of Education, Science and Culture after more or less systematic cooperation with the social partners in the trade in question. The arrangement of tests and the final evaluation is totally in the hands of the upper secondary school offering that vocational programme. Lately, more and more schools tend to appoint advisory committees representing both sides of industry in the attempt to ensure recognition of the vocational qualification in uncertified trades. It is the future task of the Occupational Councils to prepare suggestions regarding skill demands, evaluation, examinations and certification in all fields of vocational training.

5.2. Training of trainers

Legislation stipulates that upper secondary teachers of academic subjects have all completed at least four years of university education. At least two of these should be in a major subject and one year should be devoted to the study of education and instructional methodology. This programme of study is offered at the University of Iceland and the University College of Education. It provides courses in educational theory and psychology, instruction in teaching methods and curriculum studies. A comparable programme of study completed at a university abroad is also accepted as fulfilling this requirement.

Teachers of vocational subjects or other technical subjects at a vocational school must be formally qualified in the field in which they teach or, for instance, be a master craftsman or a technologist in the trade in question. The same applies for instructors in companies supervising apprentices. In addition teachers at vocational schools must have a minimum of two years of experience working in the trade after their certification/qualification. They are also required to have completed at least a half year programme of study in education and instructional methodology.

5.3. Vocational guidance

In the 1970s the legislation on compulsory and comprehensive schools included the position of school counsellors and in 1981 the Association of School Counsellors was founded. The Act on Upper Secondary Education in 1988 and the Regulation of 1990 include a very specific description of the counsellor function. The Secondary School Act of 1996 emphasises that pupils must be offered counselling on further education and employment as well as on personal matters which touch upon their

education. Special counsellors, teachers or other members of staff in the school are to provide this counselling.

The educational and vocational guidance system in Iceland is not well developed but the pace of development has been increasing in the last six to seven years. This development is mainly the result of a ministerial enhancement project of 1989–91 as well as the establishment of a Centre for Educational and Vocational Guidance, located within the Research Liaison Office at the University of Iceland.

Very little educational and vocational guidance has hitherto been offered on the labour market, either for working people or for job-seekers. There are signs, however, that the emphasis on guidance is increasing in the labour market, especially in relation to employment agencies.

Chapter VI
Trends and perspectives

6.1. General aspects of the current reforms

Since March 1999, the Ministry of Education, Science and Culture has been publishing different parts of a new national curriculum guide (NCG) for compulsory and upper secondary education. In the work there has been close cooperation between the two school levels in an attempt to ensure the coherence and continuity of education. The NCGs, which have the status of a regulation, will enter into force at both school levels in the school-year 1999/2000. In the case of upper secondary school the NCG is to be fully implemented during the next five years. The revision is based on the existing Acts and the subsequent interpretation and development of their provisions, brought forward in the new school policy 'A still better school — their right — our obligation' launched by the Minister for Education, Science and Culture at the beginning of 1998.

6.1.1. General emphasis in the new national curriculum guide

The situation in the reform process at the time of writing (May 1999) is that the general part of the NCG for the upper secondary school has been published and the revision of the curriculum guides for general academic and artistic programmes and subjects is finished, while curricular guidelines for different vocational programmes of study are under revision by the Occupational Councils (Section 4.1.3.2.). The general part of the NCG describes the general provisions and overall aims and perspectives of education. The points outlined below should be viewed in the light of problems within the upper secondary level in Iceland, discussed earlier in this report, connected to a relatively high drop-out rate and a biased recruitment of pupils to academic and vocational programmes, in favour of the former (see Tables 7 and 8).

6.1.1.1. Increased emphasis on real and realistic educational opportunities for all

There is an increased emphasis on broadening the studies provided within upper secondary school, and enhancing information and guidance on studies and jobs, so that every pupil is able to find a study programme in line with his or her own interests and abilities and in accordance with the entrance requirements in question. New entrance requirements will take effect in the school year 2001/02. Special requirements will be defined for access to general academic and artistic programmes and probably also for longer vocational programmes. Emphasis is placed on the construction of shorter vocational study programmes of one to two years with possibilities for further education. It is not very likely that entrance requirements, beyond the completion of compulsory school or its equivalent, will be set for such programmes.

For pupils who have not chosen their educational pathway or do not fulfil entrance requirements of other study programmes, individual schools are supposed to offer a training alternative of one to two years' duration, called a general programme of study (*almenn námsbraut*). The training will be adapted to the needs of the pupils and the resources available in each school with different mixtures of core academic subjects, artistic and (pre-)vocational courses.

6.1.1.2. Clear and transparent objectives and study requirements

The study objectives must be clear and transparent so that teachers, pupils and parents are not left in any doubt about the study requirements. The new NCG takes account of this and the objectives and study requirements must be further detailed in the school curriculum guide.

6.1.1.3. Increased emphasis on cross-curricular competencies

The new NCG goes further than the previous one in stating the general pedagogical role of the upper secondary school in facilitating the development of the personal and social skills of the individual. Emphasis is laid on personal skills such as responsibility, independence, self-esteem, integrity, critical thinking, creativity, ability to take initiatives and risks, adaptability to new circumstances, tolerance, cooperative skills, etc. Training in these skills is cross curricular in nature and must be integrated into all subjects and learning activities in the school.

6.1.1.4. Increased utilisation of information and communication technology

To help pupils to find more effective ways of learning and to take advantage of the information society, information and communication technology (ICT) must, as far as possible, be a tool in teaching and learning in *all* subjects and *all* study programmes in compulsory and upper secondary schools. Financial provision has been made and three developmental schools at each school-level have been chosen to pioneer this development under the supervision of the Ministry. An effort is also underway in the field of in-service training of teachers.

6.1.2. How to meet new educational challenges in individual schools

The emphases described above pose major challenges for schools. So do new measures aimed at making the schools more efficient and effective in the management and the quality of their services.

6.1.2.1. Performance management

School-boards are obliged to deliver plans for the running of schools and their finances for three-year periods to be confirmed by the ministry. These plans, which are updated annually, form the basis for a formal agreement between the ministry and each school about performance management of the school. The agreements or school-contracts (*skólasamningur*), as they are commonly called, take into account the number and composition of the group of pupils, the nature of the study programmes offered and the utilisation of resources. Thus, the offering of study programmes and other services is not just a decision of the school alone, but is one of the matters covered by the agreement. Besides giving a broad overview of the activities of the school, the agreement defines certain tasks, such as the development of methods to chart and reduce drop-out rates.

6.1.2.2. The school curriculum guide

The school curriculum guide (Section 4.1.1.3) is at the same time a policy document and the work programme of the school. It plays a key role in implementing the new NCG and establishing criteria for the quality assurance system to be developed in each school. One of the new challenges of the school is to have to reveal its pedagogical/didactical and managerial emphases and explain the reasons for choosing them.

6.1.2.3. School evaluation

Every school is obliged to introduce a system of self-evaluation (Section 4.1.1.5). The schools are free to choose their evaluation methods on condition that they are generally recognised. The evaluation must be formal, cover all types or fields of the school's activities and be based on the systematic collection and processing of data. The evaluation methods as such must also be clearly defined. The first projects of external evaluation on the self-evaluation methods of schools are planned to be conducted in 2001.

6.2. Regional aspects

6.2.1. Decreasing number of pupils in rural upper secondary schools

One of the main problems of administering upper secondary education in Iceland, in accordance with the national educational goals, is caused by regional imbalance. In December 1998, 61 % of the Icelandic population was living in the capital area. Most of the largest schools are located here, offering all kinds of educational opportunities available in the country. In other areas, with a few exceptions, such as Akureyri, the capital of the North, there are problems in operating upper secondary schools with an acceptable variety of courses on offer and within the economic resources available, because of a steadily decreasing number of pupils.

6.2.2. Regional cooperation between upper secondary schools

In the light of these problems, upper secondary schools within the same region have started cooperating or networking on the basis of a formal agreement in an attempt to establish a counterbalance to the metropolitan area and keep a bigger share of the pupil group within the region instead of their moving to the city. The aim of this cooperation is an overall improvement in educational services in respect of quality as well as the variety of courses. Among the cooperative tasks and measures is the establishment of developmental plans for upper secondary education in the region, the development of common marketing strategies, the coordination of study requirements and co-teaching courses with few pupils, e.g. through distance education. This kind of cooperation will also benefit from regional centres and networks for lifelong learning (see Section 6.4.2).

6.3. Current trends in initial vocational education

6.3.1. Increased responsibilities of the social partners

It has been underlined in former sections of this report that the social partners have a key role in policy-making and curriculum development for the initial vocational education provided for by the State. This ensures as far as possible that the IVT offered fulfils the qualification requirements of industry and that the certificates are recognised on the labour market. In the attempt to bring the implementation of IVT closer to the world of work, the social partners have also undertaken different projects and tasks previously carried out by the Ministry of Education, Science and Culture, such as supervising the making of apprentice contracts and the holding of journeyman's tests.

6.3.2. Emerging trends in the structure of IVT

In the Upper Secondary School Act, the general part of the NCG and other steering documents there are only general provisions for a common structure of vocational study programmes. The Occupational Councils are relatively free to make proposals on the structure of vocational study. In fact this means that the vocational programmes may differ considerably, e.g. in length, relative proportions of study in school and training in enterprises, sequencing and interrelationship between those two parts and the types of study contracts made. There are two main strands of development.

6.3.2.1. An increased emphasis on school-based IVT

In the VET policy for the longer programmes (three to four years) of the more technologically-based certified trades there is an increased emphasis on more and longer periods of vocational schooling and less emphasis on practical in-company training. The rationale, as put forward by the social partners, is partly based on analysis of the qualification requirements, requiring more theoretical competencies than can be acquired within most companies. Related to this is an assessment of the capacity of Icelandic companies to give a broad all-round training, given their size and the nature of their production (see Table 2).

The school-based model starts with a relatively broad basic programme of two to four terms, common for some or all VET programmes within the occupational family, where the pupil most often takes all academic subjects and acquires basic knowledge and skills common to the occupational field. The basic programme can be offered in most comprehensive and industrial vocational schools, but the following specialisation period of one to three terms exists only in a few schools with special equipment and expertise. After completion of the specialisation programme on-the-job training follows for a period of 4 to 15 months. In some cases the training is to be finished before the last school period, or parts of it can be taken in between the school periods.

6.3.2.2. The apprenticeship system

It is clear that many trades will keep the traditional apprenticeship system, especially the smaller ones. However, this system seems to be in retreat and to have lost its former position in the educational system in Iceland. Discussion is now taking place in the cooperation committee for vocational study (see Section 4.1.3.1) about the policy and implementation of on-the-job training in general. The committee emphasises the need to analyse the nature of the training contracts in both models mentioned above, to revise the basic rules, clarify the training requirements of the enterprise and make curriculum guidelines for training and instruction within the company.

6.3.3. Increasing need for vocational education in new areas

There is an increasing need for formal vocational education and training geared to the development of industry and the labour market. Where on-the-job training has hitherto been considered sufficient, emphasis is now increasing on special formal training and discussion is taking place regarding short vocational study programmes (up to two years' duration), that can be extended to further training. This is especially the case in the service sector and the processing industry. Some of the Occupational Councils are already making suggestions in this regard and some upper secondary schools have made curricular proposals for shorter vocational programmes and asked Occupational Councils to give their opinion.

Considerable effort has been put into research on skills in non-professional occupations which should be valuable in the planning process of both IVT and CVT in the near future ('Employability skills in non-professional occupations', coordinated by Dr Gerður G. Óskarsdóttir). The project has been supported by the Leonardo da Vinci programme, and is aimed at exploring general and specific occupational skills, establishing whether occupations are becoming more or less complex, and mapping out a number of non-professional occupations in order to develop job descriptions.

6.4. Continuing vocational training

6.4.1. A five-year plan for development

In line with the proposals made by the Committee on Policy Making in Continuing Vocational Training briefly discussed in Section 3.3.2.2, the Ministry of Education, Science and Culture has appointed a project group to lead a special five-year effort to increase the availability and the quality of CVT. The mandate of the group is, among other things, to make proposals to the Ministry about the organisation of the annual day of continuing vocational training (*dagur símenntunar*), find ways to increase the availability of information on CVT, as well as appropriate guidance and counselling, follow-up proposals on second chance education and lead a discussion with university-level institutions about increased flexibility in university education for adults. Furthermore, the project group will facilitate cooperation between all parties involved in CVT and make proposals to the Ministry as to the main emphasis in CVT and on standardised criteria for a quality assurance system in the field of CVT.

6.4.2. Establishment of regional centres and networks for CVT and lifelong learning

According to a provision in the Upper Secondary School Act (see Section 4.2.2) centres and networks for lifelong learning and continuing vocational education have been established in most regions, with the cooperation of upper secondary schools, the municipalities and local industry. University-level institutions, within or outside the regions, have also taken an active part in this cooperation. This development creates totally new educational facilities for people in remote places and will strengthen not only lifelong and continuing education, but also initial study in upper secondary and higher education. Distance education plays a major role here, where the use of the Internet, teleconferencing and diverse multimedia programmes has increased very rapidly over the last few years. This also underscores the importance of looking at all courses offered at all educational levels in the country as one educational market, regardless of the geographic location of educational institutions.

6.5. Enhanced cooperation between social partners and vocational schools

In November 1998 the social partners, along with vocational educational institutions established a common forum, Educate Iceland (*Mennt*), for cooperation and the coordination of policy and practice in vocational education in general, both IVT and CVT. Educate Iceland is a successor to Intercom and VEDA. Its role is to support tripartite discussions and cooperation between the trade unions, the federations of employers, and the associations of institutions responsible for vocational education at upper secondary and tertiary level. The aim of Educate Iceland is to steer cooperation towards constructive national and international projects, which benefit schools, companies and the workers.

For the first few years the work of Educate Iceland will focus on three main issues:

- facilitating the strengthening of IVT and CVT in preparation for employment;
- providing information on available IVT and CVT;
- supporting the development of national and international projects related to education and training.

6.6. Participation in European programmes and activities on vocational education

As a member of the EEA, Iceland has taken an active part in the Leonardo da Vinci programme from the start in 1995 and in Cedefop activities from 1996, on the basis of a bilateral framework agreement. Nearly 500 individuals have participated in exchange programmes during this period, or almost 0.2 % of the population. Participation in pilot projects has also been considerable. The participation has opened the way for a better flow of information regarding vocational education, training options and, not least, qualification requirements and certification systems in other European countries. In the current planning process for IVT and CVT such information is used as a frame of reference. This participation has caused at least an indirect effect, but at the moment nothing certain can be said about the real effects on the vocational education system as such. The evaluation of the first phase of the Leonardo da Vinci programme is underway. The experiences gained and the results of that evaluation will surely help Iceland to take even better advantage of the participation of companies, vocational education institutions and individuals in the second phase of the Leonardo da Vinci programme and to obtain advice on how Iceland can contribute more to European cooperation than in the first phase of the programme.

Annexes

Annex 1

List of abbreviations and acronyms

ASÍ	*Alþýðusamband Íslands* — Icelandic Federation of Labour
BSRB	*Bandalag Starfsmanna Ríkis og bæja* — Federation of State and Municipal Employees
EEA	*Evrópska Efnahagssvæðið* (EES) — European Economic Area
EFTA	*Friverslunarbandalag Evrópu* — European Free Trade Association
GATT	*Almennt samkomulag um tolla og viðskipti* — General Agreement on Tariffs and Trade
ISCED	International Standard Classification of Education
NATO	*Atlantshafsbandalagið* — North Atlantic Treaty Organisation
NC	*Norðurlandaráð* — Nordic Council
NCG	National Curriculum Guide
OEEC/OECD	*Efnahags- og framfarastofnun Evrópu* — Organisation for Economic Cooperation and Development
STCW	Standard Training Certification and Watchkeeping for Seafarers
UN	*Sameinuðuþ jóðirnar* (*Sþ*) — United Nations
VSÍ	*Vinnuveitendasamband Íslands* — the Confederation of Icelandic Employers

Annex 2

Major organisations involved in providing or regulating vocational training

Government organisations

Félagsmálaráðuneytið (Ministry of Social Affairs)
Hafnarhusinu v/Tryggvagötu
101 Reykjavik
Tel. (354) 560 91 00
Fax (354) 552 48 04
Website: http://brunnur.stjr.is/interpro/fel/fel.nsf/pages/forsida
E-mail: postur@fel.stjr.is

Menntamálaráðuneytið (The Ministry of Education, Science and Culture)
Sölvhólsgata 4
150 Reykjavik
Tel. (354) 560 95 00
Fax (354) 562 30 68
Website: http://brunnur.stjr.is/interpro/mrn/mrn-eng.nsf/pages/frontpage
E-mail: postur@mrn.stjr.is

Landbúnaðarráðuneytið (The Ministry of Agriculture)
Sölvhólsgata 7
150 Reykjavik
Tel. (354) 560 97 50
Fax (354) 552 11 60
Website: http://brunnur.stjr.is/interpro/lan/lan.nsf/pages/lan
E-mail: postur@lan.stjr.is

Social partners

Alþýðusamband Íslands (Icelandic Federation of Labour)
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107 Reykjavik
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Website: www.asi.is
E-mail: asi@asi.is

Samtök atvinnulífsins (Confederation of Icelandic Employers)
Garðastræti 41
101 Reykjavik
Tel. (354) 511 50 00
Fax (354) 511 50 50
Website: http://www.sa.is
E-mail sa@sa.is

Samtök iðnaðarins (Federation of Icelandic Industries)
Hallveigarstíg 1
101 Reykjavík
Tel. (354) 511 55 55
Fax (354) 511 55 66
Website: http://www.si.is
E-mail: mottaka@si.is

Training providers or promoters

Alþjóðskrifstofa Háskólastigsins (Office of International Education)
Neshagi 16
107 Reykjavík
Tel. (354) 525 43 11
Fax (354) 525 58 50
Website: http://www.ask.hi.is/eng/index.html
E-mail: ask@hi.is

Endurmenntunarstofnun Háskóla Íslands (The Institute of Continuing Education)
Dunhagi 7
107 Reykjavík
Tel. (354) 525 49 23
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Website: http://www.endurmenntun.hi.is/
E-mail: endurm@hi.is

Iðntæknistofnun (Technology Institute)
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Website: www.iti.is

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Fax (354) 511 26 61
E-mail: mennt@mennt.is
Website: www.mennt.is

Prenttæknistofnun (Graphic Arts Institute)
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Tel. (354) 588 07 20
Fax (354) 588 04 21
E-mail: pts@pts.is

Rafiðnaðarskólinn (School for the Electrical Industry)
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Fax (354) 581 24 20
Website: http://www.raf.is/ri/index.html
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Rannsóknaþjónusta Háskólans (Research Liaison Office)
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Website: www.rthj.hi.is
E-mail: rthj@rthj.hi.is

Fræðsluráð hótel- og matvælagreina (Educational Council for the Hotel, Food and Catering Trades)
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110 Reykjavik
Tel. (354) 580 5200
Fax (354) 580 5210
E-mail: Edda@matvis.is

Fræðsluráð málmiðnaðarins (INCED/MI: Educational Council for the Metal Industry)
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E-mail: metal@metal.is
Website: www.metal.is

Menntafélag byggingariðnaðarins (NCCE: The National Center for the Construction Education)
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Website: www.mfb.is

Annex 3

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Annex 4

Glossary of terms

Advisory committees *(ráðgjafarnefndir)*
School boards at upper secondary schools may establish one or more advisory committees for the school, including representatives from the local business community, in order to encourage optimal cooperation between school and industry and support initiatives in developing vocational education and training.

Comprehensive schools *(fjölbrautaskólar)*
Schools that offer all kinds of educational programmes available at upper secondary school level: academic, artistic, general and vocational programmes (for certified as well as non-certified trades). The academic programmes are comparable to those of traditional grammar schools and initial vocational programmes for the certified trades, while studies for the master craftsman's certificate are comparable to those of industrial vocational schools.

Compulsory school *(grunnskóli)*
Ten years of compulsory schooling for all children from 6 to 16 years of age, covering both primary and lower secondary school level.

Core schools *(kjarnaskólar)*
The Minister for Education, Science and Culture may designate an upper secondary school or section of an upper secondary school as a core school, for a longer or shorter period of time. A core school has the task of pioneering vocational training in a particular field. In consultation with the occupational council in question the core school is to lead the development of educational materials, structures and methods of teaching in vocational education and assist other schools and enterprises in improving teaching and training in respective areas.

Cooperation Committee for vocational study at the upper secondary school level *(Samstarfsnefnd um starfsnám á framhaldsskólastigi/Samstarf)*
An advisory body for overall policy-making in vocational education and training and setting of general rules on matters relating to VET. The Minister of Education, Science and Culture appoints the committee of 18.

Educate Iceland *(Mennt)*
A cooperation forum between the employment sector, educational sector, local authorities and others interested in education and training. The main focus of the work of Educate Iceland is to gather and disseminate information and facilitate transference of knowledge and competences. Educate Iceland furthermore carries out projects related to education and training, in addition to being a venue for discussions between the educational and employment sectors and policy makers.

Grammar schools *(menntaskólar)*
Schools first and foremost offering academic programmes preparing for matriculation examination or university entrance examination (stúdentspróf). Some grammar schools also offer artistic programmes or even vocational programmes in a few cases.

Industrial vocational schools *(iðnskólar)*
Schools that offer initial vocational programmes in the certified trades *(löggiltar iðngreinar)* and vocational programmes for some non-certified trades. They also offer advanced studies for a master craftsman's certificate.

Journeyman's examination *(sveinspróf)*
Nationally coordinated examination at the end of vocational study in a certified trade, held under the auspices of a journeyman's certificate committee *(sveinsprófsnefnd)*. The examination consists of a practical and a theoretical part and can last from one to 10 days, depending on the trade.

National curriculum guides *(Aðalnámskrár)*
The national curriculum guides for the compulsory and upper secondary schools form the overall frame of reference for the operation of schools on each level. The guides are supposed to translate the provisions of the educational legislation into practical pedagogical terms. They describe the overall structure and content of individual subjects and programmes of study *(námsbrautir)*, define aims and objectives and specify what is to be coordinated in the content of education and in the organisation and management of schools.

Occupational councils *(starfsgreinaráð)*
Occupational councils have been appointed by the Minister for Education, Science and Culture for 14 occupational groups. Their role is to define the education and training needs and qualification requirements of employees in individual trades, specify the objectives of education and training and make proposals regarding its organisation. In most of the councils there are seven members, three representatives from each side of the labour market and one representative from the Ministry of Education, Science and Culture.

Preschool *(leikskóli)*
Preschools are by legal definition the first level of the educational system, providing education for children who have not reached the age at which compulsory education begins.

Regional centres for continuing training and life-long learning
(símenntunarmiðstöðvar)
Centres in regions outside the capital operated by agreement between upper secondary schools, local authorities, social partners and other interested parties. They provide different kind of courses, not least through distance education, and thus increase the educational opportunities for individuals, groups and companies in rural areas.

School curriculum guide *(skólanámskrá)*
A school working guide written by the staff of the individual school on the basis of the national curriculum guide to be approved by the school board. The guide shall contain a description of the organisation of the school in question, its structure, special emphasis, the aims and content of education and services provided by the school, the rights and duties of pupils and other things which concern the operation of the school.

Specialised vocational schools
Schools operating on upper secondary school level, offering vocational programmes in one particular occupational field, like navigation, marine engineering, fish processing or horticulture.

Credit unit system *(áfangakerfi)*
A modular system for organising the content and the teaching and learning of studies in upper secondary schools. In the Icelandic credit unit system the educational content of each subject is divided into a number of defined course units *(námsáfangar)* which last for one semester. The pupils are given a certain number of credits for each course unit they complete and the pupil's progress is thus measured in credits. Generally one credit is the equivalent of two lessons of instruction per week for one semester. At the end of every semester, the pupil decides on courses for the following semester according to certain rules and in accordance with his/her own study plans and results. Thus, each pupil is given his/her own personal timetable.

Upper secondary school *(framhaldsskóli)*
The term upper secondary school is the collective designation of those schools providing education on this school level and covered by the Upper Secondary School Act. They include comprehensive schools, industrial-vocational schools, grammar schools and specialised vocational schools.

Vocational training council *(starfsmenntaráð)*
Appointed by the Ministry of Labour and Social Affairs to advise on policy-making for continuing vocational training within industry (CVT) and to make proposals to the Minister as to the distribution of grants from the Vocational Training Fund for the purpose of holding courses and producing instructional materials for CVT-courses.

CEDEFOP — European Centre for the Development of Vocational Training

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Dr Guðmundur Rúnar Árnason

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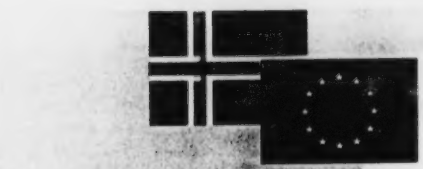

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